



NATAL GOVERNMENT RAILWAYS.

REPORT

OF THE

General Manager of Railways,

FOR THE

YEAR 1906.



NATAL GOVERNMENT RAILWAYS.

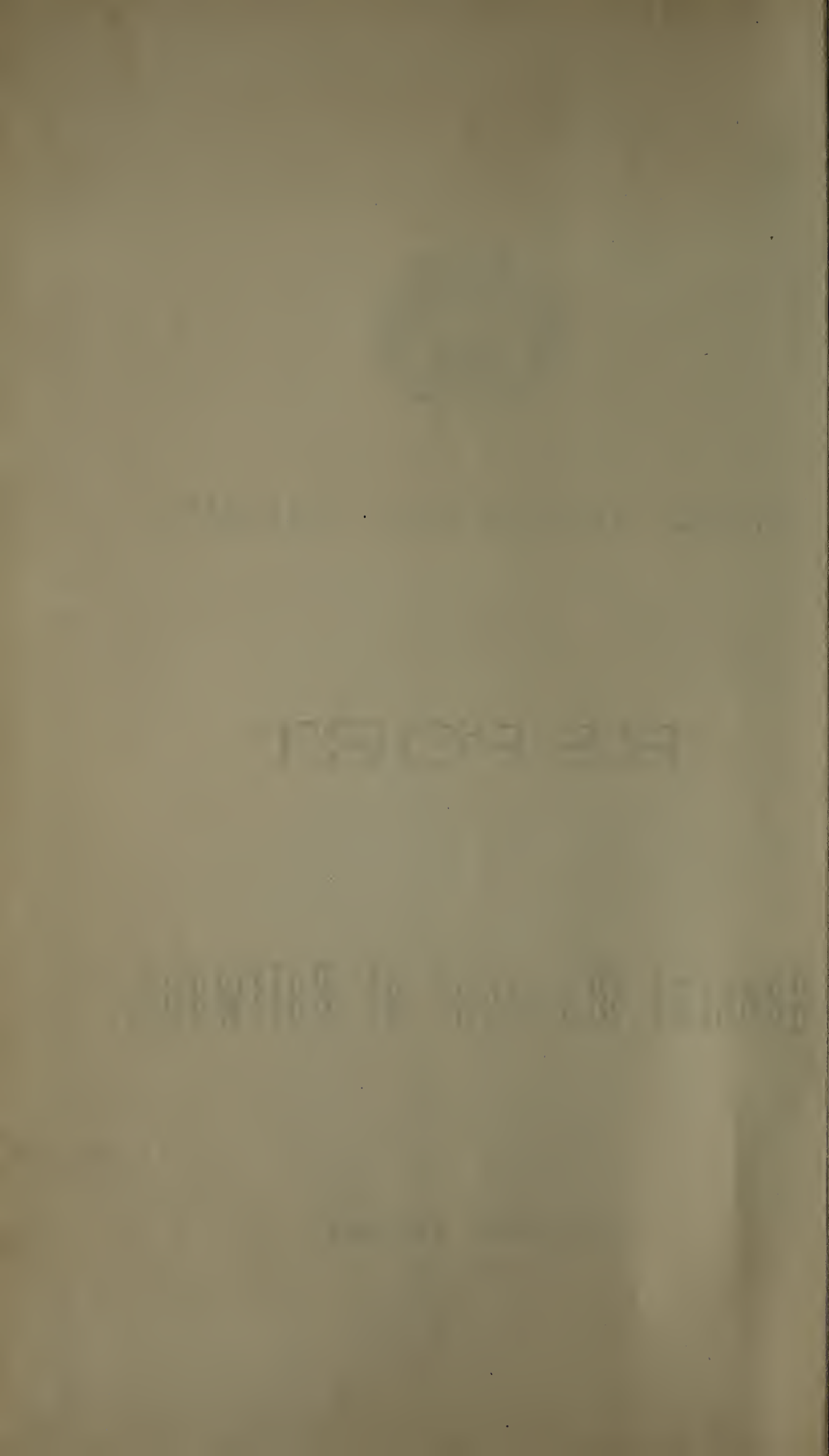
REPORT

OF THE

General Manager of Railways,

FOR THE

YEAR 1906.



385
N19
1906

INDEX.

	Annexure.	Page.	Appendix.
Alfred County Railway (Standard Gauge) ...	—	13	—
Amalgamation of Government Electrical Departments ...	—	20	—
„ „ Stores Departments ...	—	20	—
Appropriation Account, Expenditure under Votes ...	—	—	11
„ „ Works under Loans, Railway Construction, Vote E (Surveys and Construction Department's Report) ...	A follows	36	—
Appropriation Account, Railway Surveys, Vote 48 (Surveys and Construction Department's Report) ...	B „	36	—
Bethlehem-Kroonstad Railway Rates ...	—	11	—
Building of Corridor Stock for the C.S.A.R. ...	—	17	—
Capital Account Items, 1906 ...	—	—	13
„ Account ...	—	5	—
„ Expenditure Account to 31st December, 1906 ...	—	—	12
„ „ defrayed from Revenue, Comparative Analysis of	—	—	5
Cattle Wagons ...	—	16	—
Cheap Excursion Fares to South Coast Line ...	—	12	—
Classification of Salaried Staff ...	—	17	—
Coaching Stock ...	—	16	—
Coaching and Van Stock, Particulars of (Locomotive Supt.'s Report)	G follows	46	—
Coal Contracts ...	—	20	—
Comparative Analysis of Capital Expenditure defrayed from Revenue	—	—	5
„ „ Revenue and Expenditure, 1906-1905 ...	—	—	6
„ Statement of Revenue and Expenditure, 1906-1905 ...	—	—	4
„ „ Working Expenditure ...	—	—	2
„ „ Traffic Earnings ...	—	—	1
„ „ Results of Working, &c., for 1906, 1905 and 1904 ...	—	9	—
Construction Department, Report of ...	—	33-40	B
Contracts let during 1906 ...	—	—	15
Conversion of Low-sided to High-sided Vehicles ...	—	16	—
Dining Cars ...	—	17	—
Electrical Department, Statement of Expenditure (Locomotive Supt.'s Report) ...	I & J follows	46	—
Electrical Department, Comparative Statement of Generating Costs (Locomotive Supt.'s Report) ...	K „	46	—
Electrical Department, Various Stations (Loco. Supt.'s Report) ...	L „	46	—
„ „ Train Lighting „ „ „	L „	46	—
Engines and Rolling Stock ...	—	16	—
„ Erected and Repaired, Statement of (Locomotive Supt.'s Report) ...	E 1, 2, 3 „	46	—
Engine Power, Position, Condition and Particulars of (Locomotive Supt.'s Report) ...	D „	46	—
Engineer-in-Chief's Report ...	—	23-31	A
Enlargement of Iron Foundry, Locomotive Workshops, Durban ...	—	14	—
Estcourt and Ladysmith Down Grade Improvements ...	—	14	—
European Staff, Number of ...	—	17	—
Expenditure in Locomotive, Carriage and Wagon Departments, Comparative Statement of (Locomotive Supt.'s Report) ...	C follows	46	—
Fatal Accidents, Statement of ...	—	—	16
Financial Results of Working during years 1906, 1905 and 1904 ...	—	6	—
Free Passes... ..	—	19	—
General Managers' Annual Conference ...	—	20	—
Government Cold Stores ...	—	—	14
Hill Crest to Padley's Deviation ...	—	14	—
Indian and Native Staff ...	—	19	—
Ingagane-Utrecht Extension ...	—	13	—
Insulated Vehicles ...	—	16	—
Klerksdorp-Fourteen Streams Railway ...	—	11	—
Labour Supply ...	—	18	—
Ladysmith Yard and O.R.C. Junction Station ...	—	15	—
Locomotive Depots ...	—	15	—
„ Superintendent's Report ...	—	41-49	C
Main Line Improvements ...	—	15	—

INDEX.—Continued.

	Annexure.	Page.	Appendix.
Maintenance Department, Statement shewing Expenditure for 1906 (Engineer-in-Chief's Report) ...	B follows	30	—
Maximum Down Loads (Traffic Superintendent's Report) ...	C "	58	—
Mileage in Locomotive Districts and per Class of Engine, Comparative Summaries of (Loco. Superintendent's Report) ...	A "	46	—
Mileage laid with different Types of Material (Engineer-in-Chief's Report) ...	A "	30	—
" Main and Branch Lines, Comparative Summaries of (Locomotive Superintendent's Report) ...	B "	46	—
Miles Open and under Construction during the Year ...	—	12	—
Natal-Cape Line (Standard Gauge) ...	—	13	—
New Rolling Stock ...	—	17	—
" Stores Building, Durban ...	—	14	—
" Works contemplated ...	—	15	—
Number of Passengers Travelled between N.G.R. Stations and Stations on other S.A. Railways, Statement shewing ...	—	—	9
Obituary ...	—	18	—
Passenger Accommodation, Ladysmith ...	—	14	—
Principal New Works completed or in progress during the year ...	—	14	—
Proportions Earned by the various Railway Administrations in Through Traffic, Statement shewing ...	—	—	10
Proportion of Through Traffic with other S.A. Railways, Statement of ...	—	—	8
Proposed New Lines ...	—	13	—
Railway Police ...	—	19	—
Rates and Fares ...	—	11	—
Rebuilds, Rolling Stock ...	—	17	—
Reduction of Grades and Curves ...	—	14	—
Results of Working for 1906, 1905 and 1904, Comparative Statement of Report of Engineer-in-Chief, Open Lines ...	—	9	—
" " Construction Department... ..	—	23-31	A
" Locomotive Superintendent ...	—	33-40	B
" Traffic Superintendent ...	—	41-49	C
" Stores Superintendent ...	—	51-61	D
" Superintendent of Railway Police... ..	—	63-68	E
" Superintendent of Railway Police... ..	—	69-71	F
Revenue and Expenditure ...	—	6	—
" " Comparative Analysis of, for 1906-1905... ..	—	—	6
" " Statement for 1906-1905 ...	—	—	4
" " Summary of, for 1887-1906 ...	—	—	7
Rolling Stock, Summary of (Loco. Superintendent's Report) ...	F follows	46	—
Secretary to General Manager ..	—	19	—
Signalling ...	—	15	—
Smiths' Shop Extension, Durban... ..	—	15	—
South Coast Junction to Bellair Deviation ...	—	14	—
Stores Superintendent's Report ...	—	63-68	E
Strengthening of Main Line ...	—	14	—
" North and South Coast Lines ...	—	14	—
Stuartstown Railway (2ft. gauge)... ..	—	13	—
Sums Spent by the Railway Department in the Colony ...	—	7	—
Surveys and Construction Department's Report ...	—	33-40	B
Tarpaulin Shed, Durban ...	—	15	—
Tonnage and Live Stock forwarded to and received from other South African Railways, Statement of ...	—	—	9
Traffic Department, Effective Strength (Traffic Supt.'s Report) ...	A follows	58	—
" " Number of non-effective Men (Traffic Supt.'s Report) ...	B "	58	—
" Earnings, Comparative Statement of ...	—	—	1
" Fluctuations in 1906 ...	—	7	—
" for Overberg ...	—	8	—
" Superintendent's Report ...	—	51-61	D
" Supervision ...	—	19	—
Unisindusi-Thornville Junction Deviation ...	—	14	—
Upper Tugela Railway (Standard Gauge) ...	—	13	—
Volunteers (N.G.R.) at Native Rebellion ...	—	17	—
Vryheid-Parijs Extension ...	—	13	—
Wagon Stock, Particulars of (Locomotive Supt.'s Report) ...	H follows	46	—
Washaways and Slips ...	—	20	—
Water Supplies ...	—	15	—
Weenen Railway (2 ft. gauge) ...	—	13	—
Western Transvaal Trade ...	—	11	—
Working Expenditure, Comparative Statement ...	—	—	2 & 3

REPORT

OF THE

GENERAL MANAGER OF RAILWAYS

FOR THE

YEAR ENDED 31ST DECEMBER, 1906.

Natal Government Railways,

General Manager's Office,

Pietermaritzburg, 10th April, 1907.

THE HONOURABLE THE MINISTER OF RAILWAYS AND HARBOURS,

SIR,—

1. On the 25th January, 1906, I assumed the duties of General Manager, Sir DAVID HUNTER, K.C.M.G., then retiring under the age limit.

2. I have now the honour to submit, for the information of the Government, the Report and Accounts of the Railway Department for the year ended 31st December, 1906.

Capital Account.

3. The expenditure on the capital account during the year amounted to £627,304, made up as follows* :—

Additions and Improvements to Open Lines	...	...	£143,281
New Branch Lines	...	...	484,023
Total	...	...	627,304
Expenditure in previous years	...	...	13,065,665
Grand total	...	...	£13,692,969

(* See also Appendices Nos. 12 and 13),

Revenue and Expenditure.

4. The total revenue amounted to £1,836,916 as against £2,034,937 for the year 1905, a decrease of £198,021, or 9·73 per cent.

5. The working expenditure amounted to £1,236,611 compared with £1,289,459 for 1905, a decrease of £52,848, or 4·10 per cent. This expenditure includes £17,067 upon additions and improvements to buildings, ways and works.

6. The working expenditure amounted to 67·32 per cent. of the gross revenue, as against 63·37 per cent. for the preceding year, or an increase of 3·95 per cent.

7. FINANCIAL RESULTS OF WORKING DURING YEARS 1906-1905-1904.

Particulars.	1906.	1905.	1904.	Particulars.	1906.	1905.	1904.
To Working Expenses, including Betterments	£ 1,236,611	£ 1,289,459	£ 1,531,210	By Earnings ...	£ 1,836,916	£ 2,034,937	£ 1,933,934
„ Interest on Capital and Sinking Fund Contribution ...	537,937	450,330	385,210				
Total ...	1,774,548	1,739,789	1,916,420				
Net Credit Balance ...	62,368	295,148	17,514				
GRAND TOTAL ...	£1,836,916	£2,034,937	£1,933,934	GRAND TOTAL ...	£1,836,916	£2,034,937	£1,933,934

8. The following figures set forth in comparative form the annual Revenue during the last five years:—

PARTICULARS.	REVENUE.				
	1906.	1905.	1904.	1903.	1902.
Passengers ...	£ 424,705	£ 457,179	£ 453,875	£ 484,123	£ 516,023
Parcels ...	41,487	42,588	41,354	46,352	44,972
Mails ...	10,799	7,850	5,644	4,961	4,505
Rents and Miscellaneous ...	59,844	67,954	53,544	53,516	50,461
Goods, Minerals, and Live Stock	1,300,081	1,459,366	1,379,517	1,972,599	1,430,155
Total ...	1,836,916	2,034,937	1,933,934	2,561,551	2,046,116

9. The Expenditure for the past five years was as follows:—

SERVICE.	WORKING EXPENDITURE.				
	1906.	1905.	1904.	1903.	1902.
Maintenance of Ways and Works ...	£ 164,176	£ 162,129	£ 177,631	£ 202,949	£ 176,432
Locomotive Power...	468,586	497,206	585,282	649,364	585,493
Repairs and Renewals of Carriages & Wagons	151,228	139,767	185,768	171,000	124,650
Traffic Expenses ...	359,652	380,841	384,653	450,411	351,184
General Charges ...	*75,902	66,809	68,169	73,525	60,733
Works Renewals and Improvements ...	17,067	42,007	129,702	243,859	135,521
	1,236,611	1,289,459	1,531,210	1,791,108	1,434,023

* Includes as Special Expenditure in comparison with previous years:—

Railway Police	...	...	...	£4,220
Pay of Men on Active Service	...	...	...	5,501
Rebate on carriage of Provisions issued to C.S.A.R. Employees	...	...	...	2,471

£12,192

10. The working conditions during the year have been of a peculiarly difficult nature. In addition to continued trade depression in the Transvaal, which seriously affected our overberg trade, we had to contend with Native unrest and rebellion in Natal, and the prevalence of Malaria on the Coast. Our passenger as well as goods earnings were thus materially decreased, while on the expenditure side, the opening of 117 miles of new line, the increased cost of coal, and the conveyance of an additional 141,244 tons of export coal rendered an increase rather than a decrease in working expenses, probable. Under these adverse circumstances, therefore, a saving in expenditure of £52,848, and a net profit result to the Colony on the working of the Railways of £62,368, after payment of all interest and sinking fund charges, cannot be considered as altogether unsatisfactory. In view of the heavy reductions effected in working expenditure during the last few years and the increase of low grade traffic, it should be realised that further progress in the direction of decreased working expenses will be difficult.

SUMS SPENT BY THE RAILWAY DEPARTMENT IN THE COLONY.

11. The following sums were spent by the Railway Department in the Colony, and reflect the shrinkage that has taken place in the expenditure as a whole during the past three years:—

	1906.	1905.	1904.
Salaries ...	£279,853	£281,139	£287,542
Wages ...	688,732	714,901	754,961
	968,585	996,040	1,042,503
Stores purchased	199,887	184,275	258,070
Gross Total ...	<u>£1,168,472</u>	<u>£1,180,316</u>	<u>£1,300,573</u>

Traffic Fluctuations in 1906.

12. Analysis of Passenger Traffic.—The following statement shews a decrease in the total number of passengers conveyed during the year of 28,680, and in revenue of £32,391.

	Class.	1906.	1905.	1906.	
				Increase.	Decrease.
Number of Passenger Journeys (exclusive of season tickets).	First ...	325,434	358,649	...	33,215
	Second ...	673,651	681,078	...	7,427
	Third ...	1,640,263	1,628,301	11,962	...
	Total ...	2,639,348	2,668,028		28,680
Average Payment per Journey	First ...	80·8d.	86·98d.	...	6·18d.
	Second ...	40·41d.	39·65d.	0·76d.	...
	Third ...	27·46d.	29·78d.	...	2·32d.
Revenue ...	First ...	£109,572	£128,485	...	£18,913
	Second ...	113,427	112,535	£892	...
	Third ...	187,705	202,075	...	£14,370
		£410,704	£443,095		£32,391
Percentage of various Classes of Passengers to whole—					
Numbers ...	First ...	12·33 %	13·44 %	...	1·11 %
	Second ...	25·52 %	25·53 %	...	0·01 %
	Third ...	62·15 %	61·03 %	1·12 %	...
		100·00 %	100·00 %		
Revenue ...	First ...	26·68 %	28·99 %	...	2·31 %
	Second ...	27·62 %	25·40 %	2·22 %	...
	Third ...	45·70 %	45·61 %	9 %	...
		100·00 %	100·00 %		

13. Analysis of Goods Traffic.—The table hereunder shews the general division of revenue-producing goods traffic:—

DESCRIPTION OF GOODS.	Year ended 31st December, 1906.		Year ended 31st December, 1905.		1906.	
	Weight.	Per cent. of Total.	Weight.	Per cent. of Total.	Increase.	Decrease.
	<i>Tons.</i>	<i>%</i>	<i>Tons.</i>	<i>%</i>	<i>Tons.</i>	<i>Tons.</i>
SOUTH AFRICAN PRODUCE—						
*Mealies for Export	9,341	0·39	...	...	...	...
Sugar	54,067	2·27	49,027	2·15	5,040	...
Sugar Cane	123,226	5·17	46,948	2·06	76,278	...
*Soap	9,719	0·41	...	...	...	...
*Ale, Beer and Stout	9,913	0·42	...	...	...	...
*Fish (Fresh)	1,297	0·05	...	...	...	...
Fruit	19,779	0·83	14,591	0·64	5,188	...
Hides, Skins and Horns	978	0·04	688	0·03	290	...
*Manure and Fertilizer	4,831	0·20	...	...	...	...
*Matches	2,512	0·11	...	...	...	...
*Mealie Meal	12,115	0·51	...	...	...	...
Mealies	51,557	2·17	87,698	3·85	...	36,141
Mine Props	13,126	0·55	8,661	0·38	4,465	...
*Molassine and Molascuit Meal	833	0·04	...	...	...	...
Potatoes	11,753	0·49	8,606	0·38	3,147	...
Tea	1,672	0·07	1,660	0·07	12	...
*Timber	2,855	0·12	...	...	...	...
Wattle Bark	20,565	0·86	22,696	1·00	...	2,131
Wool [1906—No. of Bales and Sacks, 32,165] [1905— do. do. 34,938]	4,782	0·20	5,363	0·24	...	581
Firewood	30,554	1·28	31,211	1·37	...	657
S.A.P. not otherwise mentioned	41,781	1·75	45,683	2·01	...	3,902
Total	427,256	17·93	322,832	14·18	104,424	Nett Increase
IMPORTED ARTICLES—						
General Merchandise	502,847	21·10	567,684	24·93	Nett Decrease	64,837
Total Goods	930,103	39·03	890,516	39·11	39,587	Nett Increase
Coal and Coke (tons of 2,240 lbs.)	1,018,720	47·88	925,692	45·54	93,028	...
Other Minerals (tons of 2,000 lbs.)	312,083	13·09	349,383	15·35	...	37,300
Total Coal, &c. (tons of 2,000 lbs.)	1,453,049	60·97	1,386,158	60·89	66,891	Nett Increase
Gross Total	2,383,152	100·00	2,276,674	100·00	106,478	Nett Increase
LIVE STOCK—						
Horses, Cattle, &c.	No. 47,624	...	No. 36,985	...	No. 10,639	...
Sheep, Pigs, &c.	91,470	...	81,384	...	10,086	...

* Not accounted for separately during 1905.

14. The most notable features in the foregoing figures are:—

- (a.) The decrease in the imported general merchandise which is the main revenue producing traffic, and has declined in comparison with the previous year by 64,837 tons, or 11·42 per cent. In the Colonial produce, the mealie traffic has declined by 36,141 tons, or 41·21 per cent., while mineral traffic,—excluding coal,—has decreased by 37,300 tons, or 10·68 per cent.
- (b.) Sugar cane has increased by 76,278 tons, or 162·47 per cent.; fruit by 5,188 tons or 35·56 per cent., and potatoes by 3,147 tons or 36·57 per cent. The coal traffic has increased by 93,028 tons or 10·05 per cent.; horses, cattle, etc., by 10,639 or 28·77 per cent., and sheep, pigs, etc., by 10,086 or 12·39 per cent.

Traffic for Overberg.

15. The proportions of receipts from traffic conveyed through Natal to or from Overberg stations in comparison with the local traffic for the last three years are as follows:—

	1906.	Per Cent. of Total.	1905.	Per Cent. of Total.	1904.	Per Cent. of Total.
	<i>£</i>	<i>%</i>	<i>£</i>	<i>%</i>	<i>£</i>	<i>%</i>
Foreign Traffic with Overberg Stations	923,765	50·29	1,141,949	56·00	1,048,630	54·00
Traffic between Stations in Natal (local)	913,151	49·71	892,988	44·00	885,303	46·00

IC

To

To

Av

Mi

Av

Gr

Gr

Wo

Su

Am

Su

To

Su

Wo

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

Su

Wo

13. Analysis of Goods Traffic.—The table hereunder shews the general division of revenue-producing goods traffic:—

DESCRIPTION OF GOODS.	Year ended 31st December, 1906.		Year ended 31st December, 1905.		1906.	
	Weight.	Per cent. of Total.	Weight.	Per cent. of Total.	Increase.	Decrease.
	<i>Tons.</i>	<i>%</i>	<i>Tons.</i>	<i>%</i>	<i>Tons.</i>	<i>Tons.</i>
SOUTH AFRICAN PRODUCE—						
*Mealies for Export	9,341	0·39	...	...	...	...
Sugar	54,067	2·27	49,027	2·15	5,040	...
Sugar Cane	123,226	5·17	46,948	2·06	76,278	...
*Soap	9,719	0·41	...	...	...	...
*Ale, Beer and Stout	9,913	0·42	...	...	...	...
*Fish (Fresh)	1,297	0·05	...	...	...	...
Fruit	19,779	0·83	14,591	0·64	5,188	...
Hides, Skins and Horns	978	0·04	688	0·03	290	...
*Manure and Fertilizer	4,831	0·20	...	...	...	...
*Matches	2,512	0·11	...	...	...	...
*Mealie Meal	12,115	0·51	...	...	...	...
Mealies	51,557	2·17	87,698	3·85	...	36,141
Mine Props	13,126	0·55	8,661	0·38	4,465	...
*Molassine and Molascuit Meal	833	0·04	...	...	...	...
Potatoes	11,753	0·49	8,606	0·38	3,147	...
Tea	1,672	0·07	1,660	0·07	12	...
*Timber	2,855	0·12	...	...	...	...
Wattle Bark	20,565	0·86	22,696	1·00	...	2,131
Wool [1906—No. of Bales and Sacks, 32,165 1905—do. do. 34,938]	4,782	0·20	5,363	0·24	...	581
Firewood	30,554	1·28	31,211	1·37	...	657
S.A.P. not otherwise mentioned	41,781	1·75	45,683	2·01	...	3,902
Total	427,256	17·93	322,832	14·18	104,424	Nett Increase
IMPORTED ARTICLES—						
General Merchandise	502,847	21·10	567,684	24·93	Nett Decrease	64,837
Total Goods	930,103	39·03	890,516	39·11	39,587	Nett Increase
Coal and Coke (tons of 2,240 lbs.)	1,018,720	47·88	925,692	45·54	93,028	...
Other Minerals (tons of 2,000 lbs.)	312,083	13·09	349,383	15·35	...	37,300
Total Coal, &c. (tons of 2,000 lbs.)	1,453,049	60·97	1,386,158	60·89	66,891	Nett Increase
Gross Total	2,383,152	100·00	2,276,674	100·00	106,478	Nett Increase
LIVE STOCK—						
Horses, Cattle, &c.	No. 47,624	...	No. 36,985	...	No. 10,639	...
Sheep, Pigs, &c.	91,470	...	81,384	...	10,086	...

* Not accounted for separately during 1905.

14. The most notable features in the foregoing figures are:—

- (a.) The decrease in the imported general merchandise which is the main revenue producing traffic, and has declined in comparison with the previous year by 64,837 tons, or 11·42 per cent. In the Colonial produce, the mealie traffic has declined by 36,141 tons, or 41·21 per cent., while mineral traffic,—excluding coal,—has decreased by 37,300 tons, or 10·68 per cent.
- (b.) Sugar cane has increased by 76,278 tons, or 162·47 per cent.; fruit by 5,188 tons or 35·56 per cent., and potatoes by 3,147 tons or 36·57 per cent. The coal traffic has increased by 93,028 tons or 10·05 per cent.; horses, cattle, etc., by 10,639 or 28·77 per cent., and sheep, pigs, etc., by 10,086 or 12·39 per cent.

Traffic for Overberg.

15. The proportions of receipts from traffic conveyed through Natal to or from Overberg stations in comparison with the local traffic for the last three years are as follows:—

	1906.	Per Cent. of Total.	1905.	Per Cent. of Total.	1904.	Per Cent. of Total.
	£	%	£	%	£	%
Foreign Traffic with Overberg Stations	923,765	50·29	1,141,949	56·00	1,048,630	54·00
Traffic between Stations in Natal (local)	913,151	49·71	892,988	44·00	885,303	46·00

16.—COMPARATIVE STATEMENT OF RESULTS OF WORKING, &c., FOR THE YEARS 1906, 1905 AND 1904

PARTICULARS.	1906.	1905.	1904.	1906 compared with 1905.		PARTICULARS.	1906.	1905.	1904.	1906 compared with 1905.	
				Increase.	Decrease.					Increase.	Decrease.
Total amount debited on Capital account	£15,536,535	£12,957,545	£11,170,487	£578,990	...	Comparative Results, &c.—continued					
Total mileage of open lines owned by the Natal Government as at 31st Dec.	885	768	690½	117	...	Goods Revenue, including Livestock :—					
Average open miles worked during year	879½	782½	744½	96½	...	Goods, Local	£251,601	£249,639	£208,049	£1,962	...
Miles open for traffic on 31st December, controlled by Natal Government	935	818	775½	117	...	Through	£719,409	£934,867	£867,774	...	£215,458
Average Capital cost per mile of open lines owned by the Natal Government	£15,296	£16,837	£18,778	...	£1,541	Coal, Local	£309,140	£253,183	£189,994	£55,957	...
						Through	£19,931	£21,677	£13,700	...	1,746
						Total	£1,300,081	£1,459,366	£1,379,517	...	£159,285
						Miscellaneous Revenue	£70,643	£75,804	£59,188	...	£5,161
						Locomotives on Traffic	256	245	252	11	...
						do. under and awaiting repair	77	81	44	...	4
						do. under erection	...	...	13	...	14
						Passenger Carriages on Traffic	402	389	385	...	...
						repair	26	24	28	2	...
						Passenger Carriages under construction	5	15	12	...	10
						Brake Vans on Traffic	54	63	64	...	9
						ing repair	7	...	2	7	...
						Horse Boxes on Traffic	7	12	12	...	5
						Goods Wagons on Traffic	2,888	2,998	3,125	...	110
						various, on Traffic	364	76	74	288	...
						under construction	13	8	30	5	...
						under and awaiting repair	180	133	95	47	...
						Goods Wagons various, under and awaiting repairs	16	20	22	...	4
						Goods Vans on Traffic	120	148	125	...	28
						under and awaiting repair	8	2	6	6	...
						Number of persons employed at 31st December :—					
						Maintenance Department—					
						Salaried	84	92	94	...	8
						Wages	410	386	356	24	...
						Indians	1,044	952	906	92	...
						Natives	2,017	1,409	1,423	608	...
						Total	3,555	2,839	2,779	716	...
						Locomotive Department—					
						Salaried	160	164	166	...	4
						Wages	2,345	2,265	2,409	80	...
						Indians	655	650	515	115	...
						Natives	793	833	949	...	40
						Total	3,963	3,812	4,039	151	...
						Traffic Department—					
						Salaried	1,025	1,072	1,059	...	47
						Wages	414	488	460	...	74
						Indians	1,445	1,466	1,404	...	21
						Natives	692	1,047	1,033	...	355
						Total	3,576	4,073	3,956	...	497
						General Departments—					
						Salaried	164	156	147	8	...
						Wages	25	23	...	...	4
						Indians	69	62	58	7	...
						Natives	...	15	1	...	15
						Total	258	262	229	...	4
						Stores Department—					
						Salaried	65	47	48	18	...
						Wages	90	90	86	...	...
						Indians	153	146	144	7	...
						Natives	181	177	178	4	...
						Total	489	460	456	29	...
						All Departments—					
						Salaried	1,498	1,531	1,514	...	33
						Wages	3,284	3,258	3,334	26	...
						Indians	3,376	3,176	3,027	200	...
						Natives	3,683	3,481	3,584	202	...
						Total	11,841	11,446	11,459	395	...
						Supervision and Clerical expenditure per Train Mile :—					
						General Manager, Secretary, and Staff	0·801.	0·821.	0·871.	...	0·021.
						Chief Accountant and Staff	0·741.	0·761.	0·761.	...	0·21.
						Traffic Department	0·521.	0·461.	0·571.	0·061.	...
						Maintenance Department	0·731.	0·851.	1·131.	...	0·221.
						Locomotive Department	0·771.	0·911.	1·771.	...	0·141.
						Stores Superintendent and Staff	0·361.	0·371.	0·511.	...	0·011.
						Total	3·741.	4·271.	6·611.	...	0·531.
Gross Earnings :—	£913,151	£892,988	£895,303	£20,163	...						
Local	£293,765	£1,141,949	£1,048,631	£218,184	...						
Through	£1,836,916	£2,034,937	£1,933,934	£198,021	...						
Total	£1,219,544	£1,217,452	£1,401,500	£27,908	...						
Working Expenses	£17,372	£787,484	£532,425	£170,112	...						
Surplus of Earnings over working expenditure	£17,067	£42,007	£129,701	£24,940	...						
Amount expended on betterments	£600,305	£745,077	£402,724	£145,172	...						
Surplus of earnings over working expenditure and betterments	£537,937	£450,330	£385,210	£87,607	...						
Total amount debited for interest and Contribution to Sinking Fund	£62,368	£295,147	£17,514	£232,779	...						
Surplus of earnings over working expenditure, betterments, interest, and Sinking Fund charges	66·39%	61·63%	71·66%	4·76%	...						
Working expenditure in per cent of earnings	67·32%	63·37%	79·18%	3·95%	...						
Surplus over working expenditure, betterments, interest, and Sinking Fund charges in per cent. of capital	0·46%	2·28%	0·16%	1·82%	...						
Earnings per open mile worked	£2,008·60	£2,699·73	£2,597·63	£511·13	...						
Working expenditure and betterments per open mile worked	£1,406·04	£1,647·35	£2,056·70	£241·31	...						
Net return per open mile worked	£592·56	£562·38	£540·93	£261·82	...						
Train miles run	4,628,953	4,483,158	4,292,028	145,795	...						
Earnings per train mile	95·241.	108·941.	108·141.	13·701.	...						
Working expenditure, including betterments, per train mile	64·121.	69·031.	86·621.	4·911.	...						
Net return per train mile	31·121.	39·911.	22·621.	8·791.	...						
Working expenditure, betterment, and interest and Sinking Fund charges per train mile	92·011.	93·141.	107·161.	1·131.	...						
Net gain to the Colony, per train mile	3·231.	15·801.	0·981.	12·571.	...						
Passenger Journeys :—											
Local	2,461,354	2,477,824	2,663,547	16,470	...						
Through	177,994	190,204	167,424	12,210	...						
Season tickets	1,731,938	1,899,220	No account	167,282	...						
Total	4,371,286	4,567,248	2,710,971	195,962	...						
Gross Tonnage :—											
Goods, Local	693,265	855,728	856,184	37,537	...						
Through	340,920	384,171	383,879	35,251	...						
Coal, Local (Tons of 2,240 lbs.)	872,580	765,023	568,710	119,552	...						
Through	146,140	172,664	101,186	26,524	...						
Total (Tons of 2,000 lbs.)	2,383,152	2,276,674	2,150,354	106,478	...						
Departmental Goods tonnage (non-paying) :—											
Maintenance Department	72,165	61,663	10,512	...	...				
Loco	8,304	8,218	86	...	...				
Coal (Tons of 2,240 lbs.)	216,493	201,266	No account	15,227	...						
Traffic Department	74,111	37,118	36,993	...	...				
Stores	16,111	12,707	3,404	...	...				
Total (Tons of 2,000 lbs.)	413,163	359,477	53,686	...	...				
Grand tonnage, paying and non-paying Traffic (Tons of 2,000 lbs.)	2,796,315	2,636,151	No account	160,164	...						
Number of Horses and Cattle carried :—											
Local	38,784	20,879	13,831	17,906	...						
Through	8,949	16,106	13,164	7,167	...						
Total	47,733	36,985	26,995	10,748	...						
Number of Sheep, Pigs, &c. carried :—											
Local	68,626	68,987	67,166	9,639	...						
Through	22,122	22,397	16,683	275	...						
Total	90,648	81,384	83,749	9,264	...						
Coaching Revenue :—											
Local	£287,650	£305,566	£336,599	£18,036	...						
Through	£178,642	£194,181	£168,630	£16,639	...						
Total	466,192	£499,767	£495,229	£33,575	...						

Rates and Fares.

17. In March, representatives of the several South African Governments met in Conference at Pietermaritzburg, in order to decide matters affecting South African Railway Tariffs. Several principles were there affirmed, and considerable reductions in the rates for certain articles were agreed to.

- (a.) The freight for South African Sugar in through traffic was reduced to a rate of 1d. per ton per mile over the lines of the Central South African Administration.
- (b.) The through rates on South African Wheat and Wheaten Meal and Flour, and on Grain generally imported into South Africa from overseas were substantially reduced.
- (c.) A number of minor adjustments in rates were also effected.

18. The important principle was agreed to that in the event of a reduction being made in the through rates from Ports to the Transvaal, a corresponding reduction should be effected in the preferences enjoyed by the Delagoa Bay route in terms of the "Modus Vivendi."

19. The resolutions of the Conference dealing with adjusted tariffs were given effect to on the 1st September last, but the Conference resolution to reduce the Delagoa Bay preference referred to in the foregoing paragraph has not yet been brought into force.

20. Rough (Imported) Timber, in through traffic, was in September last placed in a lower classification than obtained previously, which approximately gave a reduction of 15s. per ton to stations within the competitive areas of the Central South African Railways.

21. The Rates in Local Traffic for Minerals, other than Coal, were reduced from 1d. to approximately $\frac{3}{4}$ d. per ton per mile for distances beyond 82 miles, from 1st September, 1906.

KLERKSDORP-FOURTEEN STREAMS RAILWAY.

22. On the 17th May the Klerksdorp-Fourteen Streams Railway (144 miles) was opened for public traffic. In connection with that opening the rates from Capetown to Klerksdorp and intermediate stations to Johannesburg were reduced, as were also the rates of freight from Port Elizabeth and East London to Klerksdorp, Potchefstroom, and certain other stations on the Klerksdorp-Johannesburg Line.

23. The effect of these reductions was that the advantage in the rates possessed by Natal for many years was converted into a distinct disadvantage, notwithstanding that Durban is much nearer by rail than any of the Cape Ports. Strong representations were made by this Administration against the introduction of the new rates from the Cape Ports without any corresponding alteration in the Natal Tariff, but up to the present time, without result.

WESTERN TRANSVAAL TRADE.

24. The trade of the Western Transvaal is generally served by the Cape route, owing to the low "In Transit" rates which operate from Ports to stations on the Cape Railways adjacent to the Transvaal Border. Representations have been, and are still being made, in order to have the Natal route placed on equal terms in competing for this trade with its competitors.

BETHLEHEM-KROONSTAD RAILWAY RATES.

25. The extension of our system into the Orange River Colony by the opening of the Bethlehem-Kroonstad Railway (88½ miles) placed our route in a better position to compete for a legitimate proportion of the trade of that Colony.

26. This connection shortens the distance by railway from Durban to the principal centres of the Orange River Colony south of Kroonstad by 182 miles, as compared with the Charlestown route.

27. By the opening of the Bethlehem-Modderpoort Railway which it is expected will be ready for traffic in May of this year, further areas for the extension of Natal's trade will be opened.

28. In its agreement with the High Commissioner, Natal's traffic is entitled to the most favoured rates operating in the Orange River Colony, and as a result the rates from Durban to Kroonstad and Intermediate stations between Smaldeel and Viljoens Drift shew an advantage over the corresponding rates from Cape Ports. In order to preserve its trade, the Cape Administration granted rebates equivalent to the difference between the rates from Durban and East London respectively. In terms of our Agreement, the Central South African Railways met these rebates by the application of countervailing rates. The case for the respective Colonies was referred to the High Commissioner, who decided, as a temporary measure, that for the period of one year, the rates from East London and Durban should be equalised at Smaldeel and Modderpoort respectively. For the purpose of adjusting the rates in the area of each Administration's sphere of trade influence, and to settle details generally in respect thereto, a Conference of the General Managers of the Central South African Railways, Cape and Natal Administrations met at Bloemfontein on the 1st December, and as a result of their deliberations a revised tariff was brought into operation on the 17th December.

CHEAP EXCURSION FARES TO SOUTH COAST LINE.

29. Every endeavour has been made to popularise the Sea-side Resorts on the South Coast Line by the introduction of specially low fares. Financially the effort has not so far been rewarded, although there has been a fair increase in the number of passengers visiting the South Coast.

30. Three exceptional factors had to be contended with during the year, viz., the continued heavy depression of trade, the native rebellion, and the prevalence of malaria. These causes undoubtedly operated against a successful comparison with tickets issued at the ordinary excursion fares in 1905. It is proposed to repeat the experiment again this year, with a slightly higher rate of fare.

Miles Open and Under Construction during the Year.

31. The total mileage worked by the Natal Government Railways at the end of the year was 1,023½. The details of the mileage opened during the year are as follows:—

		Mileage.	Opened for Traffic.
<i>a. Natal-Cape Line—</i>			
Donnybrook to Creighton	...	15½	May 16th, 1906.
<i>b. Upper Tugela Railway—</i>			
Ennersdale to Los Kop	...	13½	June 1st, 1906.
<i>c. Bethlehem-Kroonstad Railway—</i>			
Bethlehem to Kroonstad Junction	...	88½	June 21st, 1906.
Total		117	

32. The last mentioned extension was built by the Natal Government under agreement with the High Commissioner of South Africa, and was opened for public traffic within 13 months from the time of commencing construction operations. This line has already considerably increased Natal's trade to the Orange River Colony.

33. The lines under construction at the end of the year were as follows:—

	Gauge.	Miles.
* Alfred County Line	3½ ft.	6½
* Upper Tugela Line	3½ ft.	10½
* Weenen Line	2 ft.	28½
† Stuartstown Line	2 ft.	97
Total		143

* Departmental construction.

† Being built by Contractors, who will, under Agreement, work same for a period of two years after completion.



ORANGE RIVER COLONY BRANCH, LINDLEY ROAD STATION.



ORANGE RIVER COLONY BRANCH, VALSCH RIVER BRIDGE.

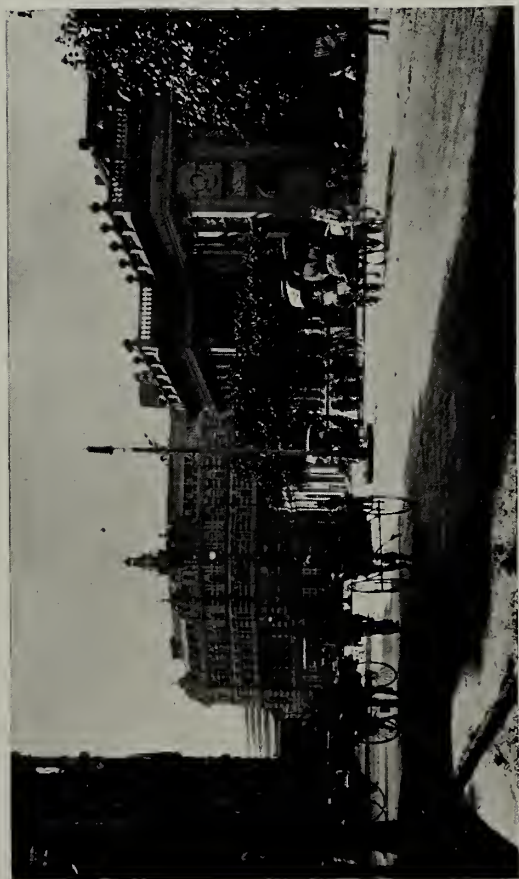


ORANGE RIVER COLONY BRANCH, BETHLEHEM STATION.

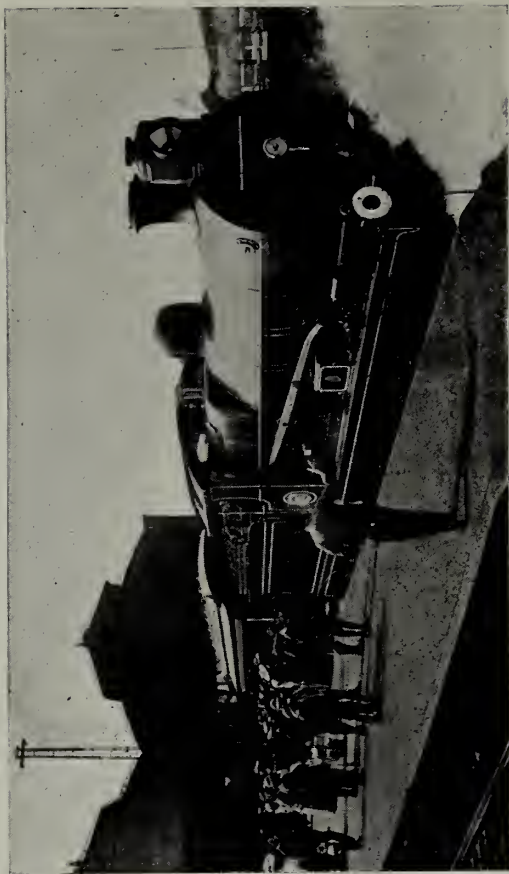


ORANGE RIVER COLONY BRANCH AT 316 1/2 MILES.





RAILWAY OFFICES AND POST OFFICE, GARDINER STREET, DURBAN.



CORRIDOR TRAIN AT MARITZBURG STATION.



34. Alfred County Railway (Standard Gauge).—Considerable progress had been made in the construction of the Bridge over the Umzimkulu River at the end of the year. Platelaying operations will be carried out on the embankments and cuttings already executed on the completion of the bridge to run the rails and sleepers forward. The line will temporarily terminate at the beach, a distance of $6\frac{1}{2}$ miles from North Shepstone.

35. The whole of this extension can presumably be looked upon only as an instalment, as under existing conditions it will open up no new country, and will not pay the cost of working or interest. Its termination on the Beach, six miles south of North Shepstone, is, from a business point of view, peculiarly indefensible.

36. Upper Tugela Railway (Standard Gauge).—The section from Los Kop to Winterton is well in hand, and will, it is expected, be ready for traffic early in May next, when $10\frac{3}{4}$ miles will have been added to the present line, making a total of 24 miles.

37. Weenen Railway (2 ft. Gauge).—At the end of the year the rails had reached Weenen. There was then, however, a considerable mileage to be ballasted. Owing to the tick fever restrictions upon the movement of ox wagon transport, a goods service was inaugurated on the 4th October by construction train to Halfway House, a distance of 18 miles from Estcourt. This preliminary service has since been extended to Weenen. The two engines imported for the line are giving satisfaction, and it is expected that the goods and other rolling stock will meet requirements. A limited number of this design was obtained so that any necessary improvements may be made when constructing additional plant. The line will be opened for passenger and goods traffic in April, 1907.

38. Stuartstown Railway (2 ft. Gauge).—Construction work is now in full operation. Before the end of the year several consignments of permanent way material had arrived in the Colony. The earthworks at the south end of the line will shortly be in a position to receive the rails.

39. Natal-Cape Line (Standard Gauge).—Work for the present has been stopped at Creighton, 95 miles from Pietermaritzburg. It is expected negotiations with the Cape Government will shortly have advanced sufficiently to enable the work to be continued from Creighton to Riverside. Under the proposed agreement Natal will build the 3·8 miles from the Border at the River Umzimkulu to Riverside, and work the line from that point to Llewellyn.

PROPOSED NEW LINES.

40. Vryheid-Parijs Extension, $37\frac{1}{2}$ Miles.—During the year a Bill was authorised by Parliament for the extension (on the standard gauge) of the line from Vryheid to Hlobane and Parijs. Hlobane is situated at $17\frac{1}{2}$ miles on the new line, and is the centre of extensive coal beds. Parijs, the terminus of the extension, is $37\frac{1}{2}$ miles from Vryheid, where iron ore deposits will be worked. The line is to be built by Government for Mr. G. H. BONAS, under guarantee by the Government of $3\frac{1}{2}$ per cent. per annum upon the capital cost of the line, not exceeding £240,000. The profits and losses in working are to be shared by the Government and owner. The agreement continues for a period of 25 years, and is subject to (a) the supply to Government of coal for locomotive purposes at 5s. per ton, and (b) the development of iron and steel works at a cost of not less than £200,000.

41. Ingagane-Utrecht Extension, 29 Miles.—Parliamentary sanction was given to the construction of this extension (on the standard gauge) by the Utrecht Collieries, Ltd., without any Government interest guarantee on the capital cost. At the time of writing this report no actual construction operations had been commenced.

Principal New Works Completed or in Progress during the Year.

42. Enlargement of Iron Foundry, Locomotive Workshops, Durban.—This work has been completed and the result is that an increase in output of castings equal to 48 per cent. is now possible.

43. New Stores Building, Durban.—On the 23rd August this building was completed, and handed over to the Stores Department. It meets to a considerable extent, the long felt demand for improved accommodation, and renders it possible to more securely and satisfactorily store the class of articles consumed not only by the Railway Department, but also by other Government Departments. It has thus assisted in the inauguration of the Stores Amalgamation Scheme.

44. Passenger Accommodation, Ladysmith.—As a temporary step pending the provision of permanent Station buildings, improved waiting room accommodation and other facilities for both the European and Coloured passengers have been provided. The work carried out has removed a long standing source of public complaint.

REDUCTION OF GRADES AND CURVES.

45. South Coast Junction to Bellair ($2\frac{1}{2}$ miles).—This work was still incomplete at the end of the year, although by that date the earthworks had been prepared for the reception of the permanent way, which at the time of writing this report is being placed in position. The deviation will give a grade of 1 in 50, and replace the present excessive curvature by an easy one of 1,000 degrees. It is proposed to make use of the existing line for down traffic, and so give the distinct advantage of a double line between South Coast Junction and Bellair.

46. Hill Crest to Padleys ($1\frac{1}{4}$ miles).—The deviated line was brought into use on the 9th December, and is a decided success. A load of 425 tons is now taken by down trains, or an increase of 32 per cent., and an unbroken load may consequently be worked from Botha's Hill to Durban.

47. Umsindusi and Thornville Junction Deviation (4 miles).—This deviation was opened for traffic on the 8th July, and ensures a continuous maximum load of 390 tons by up trains over the Cato Ridge and Maritzburg section, or an increase of 32 per cent. upon the former load.

48. Estcourt and Ladysmith Down Grade Improvements ($3\frac{3}{4}$ miles).—Deviations at or about 157, 158 and 159 miles, were brought into use on 17th June, 22nd July, and 4th November, respectively. At the end of the year there still remained two further deviations to be completed, namely, at 158 and 167 miles, the former of which has now been brought into use. The policy of constructing deviations is entirely a sound one, and should be continued, even in spite of temporary financial depression.

STRENGTHENING OF MAIN LINE.

49. As part of the urgently necessary improvements to the Main Line, which, however, do not affect the grades and curves, the work of increasing the number of sleepers per rail length, providing an improved fish plate, and replacing the present cast iron chair by a steel one on the guard railed portions, has been commenced, and will result in very considerable future economy in maintenance, while providing a better running road for the locomotives and rolling stock. A sum of £20,000 was authorised for this important work in the current Supply Bill, and further sums will be asked for annually until the whole is overtaken.

STRENGTHENING OF NORTH AND SOUTH COAST LINES.

50. On the passing of the Supply Bill Indents were transmitted to the Agent General for 12 miles of 60 lb. type of materials, 7 miles of which are to be laid



UMSINDUSI DEVIATION.



BRIDGE OVER UMSINDUSI RIVER ON DEVIATION.



NEW UMSINDUSI STATION.



OVERHEAD ROAD BRIDGE, UMSINDUSI DEVIATION



down on the South Coast Line, and the remaining 5 on the North Coast Line. At the end of the year only $3\frac{1}{4}$ miles of relaying work had been overtaken, but it is now well in hand and will be fully completed at an early date. There will then remain only other 3 miles to complete the section from South Coast Junction to North Shepstone. The improvement of the Line already effected, has resulted in an increased speed on the branch. All that can be done in this direction will tend to further popularise this Line, and develop the tourist and holiday traffic.

SIGNALLING.

51. It has been decided to continue the installation of modern signalling appliances at the principal Stations, a work initiated in the year 1900. During the past year an extension of the interlocking signalling was completed at Durban, with a resultant saving in wages which should speedily cover the capital cost involved. This financial year, Pietermaritzburg Station Yard and Malvern Station will be installed with modern signalling arrangements, and at the former Station a considerable annual saving will be effected by the withdrawal of pointsmen. It is intended to ask for an annual vote on account of signalling until the whole system is fully equipped.

New Works Contemplated.

52. Ladysmith Yard and O.R.C. Junction Station.—Although a sum of £5,000 was provided in the current Supply Bill it has not been possible to make a commencement with the work of re-modelling the Locomotive and Traffic arrangements at Ladysmith. Plans are, however, under consideration with the object of treating the work sectionally, and restricting the expenditure to the immediate requirements. It is imperative that financial provision should be made to cover this long delayed and increasingly necessary work.

53. Main Line Improvements.—In the next financial year it is proposed to improve the grades on the Estcourt-Ladysmith Section, which preclude down trains from conveying the full load applicable to a 1 in 50 grade. In view of the preponderance of the coal conveyed coastwards over the up traffic, the energies of the Department will be devoted to the improvement of the grades to down trains, and the section Dargle Road to Hilton Road falls to be undertaken as soon as financial provision is made. Improvements are being carried out where the gain in load is of such a nature that a distinct reduction in working expenses will be effected.

54. Tarpaulin Shed, Durban.—This shed, constructed of inflammable material, is situated adjacent to buildings containing stores of considerable value; and in the estimates provision has therefore been made for its removal to Greyville. Two fires, originating in this shed, had to be dealt with during the year.

55. Smiths' Shop Extension, Durban.—It is very desirable that this long deferred work should be put in hand, as not only is it necessary in order to assist the operations of other sections of the Locomotive Department, but considerable sums now involved in importing forgings would be spent in the Colony, and enable large quantities of scrap material to be worked up locally. A sum is therefore being placed on the Supply Bill to provide for this work.

56. Locomotive Depots.—At a number of the up-country centres the Locomotive Shedding and Coaling facilities require considerable improvement. A sum is being included in the new Supply Bill to overtake the most urgent portion of the work, and thus enable a reduction to be effected in the present haulage of locomotive coal.

57. Water Supplies.—A scheme is proposed for the supply of water on the Biggarsberg in order to obviate the present haulage of water from Dundee to Glencoe Junction, and generally improve our watering arrangements at a part of the line which has given trouble from time to time, and especially since the development of the Main Line traffic.

58. The filtering of the water used by the Locomotive Department at a number of the up-country Stations requires attention, and as a first step, an experiment is being made at Sunday River. Should it prove successful, similar action will be taken at the other Watering Stations where the condition of the water is detrimental to the Engines during the rainy season.

Engines and Rolling Stock.

59. The capital expenditure on Engines and Rolling Stock amounted to £41,080, making a total expenditure up to the 31st December, 1906, of £3,417,729.

60. **Engines.**—No new engines were obtained during the past year. It is, however, desirable to obtain five additional 6-wheeled coupled Tender Engines of the type now successfully working the Mail Trains between Ladysmith and Charlestown.

61. The Locomotive Superintendent has designed a modified type of the 8-wheeled coupled Tender Engine for working the upper section of the Main Line where the curves generally do not exceed 500 degrees radius. The design of this engine provides for a deep firebox, which, it is anticipated, will give considerable economy in coal consumption, and will also ensure a longer life to the boiler. Two of these will be placed on order as early as possible.

62. **Repairs to Locomotives.**—During the year 235 locomotives passed through the Repair Shop, or an increase of 45 as compared with the previous year. Considerable progress has been made in bringing an increased number of locomotives into a state of efficiency. The increasing train mileage (145,795 miles in excess of the year 1905) necessitated continuous and heavy expenditure on this work.

63. **Coaching Stock.**—The following passenger vehicles constructed in the Workshops were placed on traffic :—

- Five 1st and 2nd class compo. lavatory corridor carriages.
- Four 2nd class lavatory corridor carriages.
- One 1st class carriage, non-lavatory.
- One 1st and 2nd class carriage, non-lavatory.
- One 2nd class carriage, non-lavatory.
- Two 2nd class and guards compo., non-lavatory.

At the end of the year the following stock was in course of construction :—

- One 1st class corridor carriage.
- Four suburban coaches.

The latter are of the same type as those now in service, which have proved to be well suited for the traffic for which they were designed.

64. **Cattle Wagons.**—In the middle of the year a commencement was made with the construction of 25 Cattle Trucks, and at the end of December, twelve had been placed on traffic. The completion of these vehicles will enable a corresponding number of steel wagons, hitherto set aside for live stock, to be released for coal and general traffic.

65. **Insulated Vehicles.**—Seven 8-wheeled bogie Insulated Vans for the conveyance of meat and other perishable goods were completed and placed on traffic, as well as two dairy vans.

66. **Conversion of Low-Sided to High-Sided Vehicles.**—The conversion of 25 low-sided to high-sided wagons was authorised in the month of October, and forms the first instalment of 200 wagons of the 22-ton capacity stock to be converted in this manner to enable a full load of 22 tons of coal to be carried instead of 16 tons, the average they are at present capable of taking. It is also proposed to similarly alter a number of the 35-ton capacity low-sided vehicles in view of the increasing demands of the coal trade upon our wagon stock, and the present excess of low-sided vehicles over the requirements of the timber and rail traffic.

67. **New Stock.**—Owing to the shrinkage of traffic receipts the original intention of constructing 25 additional 35-ton capacity wagons departmentally was not carried out, but the money voted by Parliament will, as far as possible, be utilised in improving the carrying capacity of the existing stock.

68. It is hoped that the completion of the coaling appliances on the Bluff will considerably assist the Railway Department by the quick release of loads, as under existing arrangements a very large amount of rolling stock is tied up for storage purposes at the Port.

69. **Rebuilds.**—At the end of the year a total decrease in the value of engines and rolling stock as compared with the original capital expenditure had taken place to the extent of £90,707. This sum is the value of stock worn out and broken up in past years. It is desirable that action should be taken to make good the wastage by rebuilds as a charge to revenue, and the work, for financial reasons, must be spread over a period of years. In the new Supply Bill a sum of £20,000 is asked for the purpose. The expenditure will be confined to those classes of stock which are most urgently required for traffic work. The alternative to building fresh stock is the writing down of the capital.

70. **Building of Corridor Stock for the Central South African Railways Administration.**—There are now being constructed in the Shops on behalf of the C.S.A.R. Administration the first instalment of 24 Corridor Vehicles composed of 4 Dining Cars, 12 first class and 8 second class carriages. This work will keep the construction section of the Carriage Shops fully occupied for at least eighteen months, and while the assistance thus being rendered to the sister Administration will be of value to it, the Natal Railway Department will be able to retain in its employment a larger number of artisans than would have been necessary for its own requirements. The practical completion for the present of the Department's programme of carriage building has made it possible to undertake the new work.

DINING CARS.

71. With the opening of the extension between Bethlehem and Kroonstad in the Orange River Colony, a service of Dining Cars was introduced between the latter point and Van Reenen with considerable advantage to the travelling public.

European Staff.

72. **Number of.**—There has been no relaxation of the policy of retrenchment which became necessary three years ago, but the increased mileage open and increased number of train miles run, together with additional repair work necessary in the Locomotive Shops, have not rendered possible any marked decrease in the numbers, which at the end of December during the past three years were as follows:—

1906.	1905.	1904.
4,782	4,789	4,848

73. **Volunteers at Native Rebellion.**—During the Native Rebellion, February-August, 1906, no less than 7 per cent. of the European Staff were called upon to proceed to the scene of operations as representatives of either Volunteer or Reserve bodies. Credit is also due to those officers who, having remained at their Railway posts, were obliged to undertake more onerous duties.

74. **Classification of Salaried Staff.**—New scales of salaries have been brought into operation since 1st July, 1906, to govern the Administrative and Executive Staffs of all Branches of the Service, and these have been supplemented by a

scheme of classification to include all salaried Officers. It is hoped that a common incremental date will be practicable as from 1st July next, which will considerably simplify the salaried question.

75. *Obituary*.—During the year the Department has been bereaved of many old and faithful Officers.

76. The much regretted death of Mr. LEONARD BRERETON, Maintenance Engineer, who for twenty years had been associated with the Railway System, occurred at Maritzburg on 21st August last. His position has been filled by the appointment of Mr. G. R. HOLGATE, who for 16 years has been associated with the Construction Department, and at the time of his transfer was completing the construction of the Kroonstad Extension in the Orange River Colony.

77. Mr. GEORGE GUILLOD, Clerk of Works, Durban, died on 30th September, 1906, after 18 years service. In view of the necessity of retrenchment and the small amount of new work now in hand or likely to be placed in the immediate future, the duties of Clerk of Works have been merged with those of the District Engineer, who for the better supervision of his District and more efficient control of his work generally was placed with Headquarters at Durban on the 1st December, 1906.

78. In the Locomotive Department, the service suffered loss in the death of Mr. G. LEVERETT, Foreman Carriage Builder, who for 25 years had been associated with the Department. The vacancy was filled by adding the duties of Carriage Foreman to those of the Saw Mill Foreman.

79. Mr. W. BIRD, Locomotive Inspector, died on the 11th May, 1906, after 26 years useful service. The re-arrangement of Districts has rendered the appointment of a successor to Mr. BIRD unnecessary.

80. The Maintenance Department lost through death the services of Permanent Way Inspector W. H. BEVIS, who had been in the service for 27 years, and also Mr. J. H. GOLDBORNE, who had been with the Department for six years, and was Chief Bookkeeper in the Maintenance Department.

81. The Department lost one of its oldest servants in the death of Mr. J. GORDGE, of the Stores Department, he having entered the service on 20th January, 1880.

82. Messrs. J. MORGAN and J. SMITH, Station Masters at Krantz Kloof and Bothas Hill, have also been removed by death after a very creditable career in the Railway Service extending to 17 and 21 years, respectively.

Labour Supply.

83. The policy, which obtained for many years, of engaging coloured labour through the medium of contractors has been modified, the Department now recruiting its own Native labour. This system gives better control at a considerably reduced cost.

84. The amendments to the Indian Immigration Laws have proved advantageous to the Department, as more Free Indians have come forward for work, and a larger number of men have been taken on under re-indenture. The indentured men taken over during the year have replaced more highly paid Free Indians or Natives, and thus brought about a considerable saving in expenditure.

85. During the year 1,087 Free Indians have been taken on, and 1,217 left the service; 555 Indentured Indians have been taken over; 232 have completed their indenture, and of the latter 91 were re-indentured.

86. Sixty-eight Indentured men have deserted, and of these 41 were arrested. The remainder have not yet been recovered. Fifty-nine Indentured Indians were returned to India as being unfit for further service.

INDIAN AND NATIVE STAFF.

87. The following is the total number of Indians and Natives employed in the Department as on the 31st December, 1906 :—

Class.	Traffic.	Maint.	Loco.	Stores.	Labour.	Total.
Indentured Indians ...	661	355	255	101	92	1,464
Free Indians ...	680	810	411	52	15	1,968
Natives ...	611	2,168	811	150	9	3,749
	1,952	3,333	1,477	303	116	7,181

88. The population of Barracks at the chief Stations at the end of the year was as under :—

Place.	Men.	Women.	Children.	Natives.
Durban and Point ...	1,024	380	478	607
Pietermaritzburg ...	204	89	113	311
Ladysmith ...	155	54	73	103
Newcastle ...	30	11	17	25

Free Passes.

89. The number of Free Annual Season Tickets issued to other branches of the Public Service during the year totalled 415, in addition to 347 Complimentary and Parliamentary Inter-Railway Passes issued by the several South African Railway Administrations and available over the Natal Government Railways.

90. A small beginning has been made by the reduction of the number of Free Annual Passes issued for 1907, but a great deal still remains to be done in this direction if matters are to be put on a proper footing, and the present heavy loss of revenue to the Department avoided.

General.

91. **Secretary to General Manager.**—On the 1st March, 1906, Mr. HEDLEY SALMON was transferred from the position of District Agent at Johannesburg to that of Secretary in the General Manager's Office, thus filling the vacancy created by the retirement of the Assistant General Manager, (Mr. J. M. HUNTER), who left the Department by resignation on the 31st March, 1906, after 16 years' service.

92. **Traffic Supervision.**—On the 1st September the control of the Traffic staff and operating arrangements generally was placed under the direct charge of a Traffic Superintendent, the duties being taken up by Mr. D. B. DOWNIE, who up till then had filled the position of Assistant Traffic Manager attached to my Office. The expansion of the system and the development of traffic has justified the creation of a distinct Department as is common on other Railway Systems, and was only departed from in Natal at a time when the system and traffic working were of much smaller proportions than they are to-day.

93. The commercial side of the traffic working, including Rates and Claims, continues to be directly attached to the Head Office.

94. **Railway Police.**—In accordance with the terms of the Supply Bill, the cost of the Police set aside for the use of the Railway Department was taken to debit as a charge to Railway Working as from the 1st July last. It was found on

investigation by the Railway Department that the force was in excess of the requirements. It was accordingly largely reduced in numbers, and an economy effected of £5,039 per annum. The case is a very good example of the economy to the Colony resulting from the strict allocation of expenses to the Department properly liable for them. The principle could with equal success be applied in the converse direction, and the Railway Department credited with the cost of many services now rendered free—when it is probable that the demand for those services would disappear or at any rate be largely modified.

95. **Amalgamation of Government Electrical Departments.**—On the 1st August the control of the Electrical installations of the Harbour Department was taken over by the Electrical Engineer of the Railway Department, which places all of the Government Electrical Departments under one authority.

96. The scheme for the supply of energy for the Port requirements from the Railway Central Power Station, Durban, has during the year been pressed forward. Contracts were entered into for the supply of materials and the carrying out of important sections of the work. It is expected that the main portion of the scheme will be completed early in this year.

97. **Amalgamation of Government Stores Departments.**—On the 1st July the amalgamation of the Government Stores Departments of the Colony was carried out, the section under the Railway Department taking over the whole of the duties. Considerable economy will be realised in supervision as well as by the standardising as far as possible of stores used in the various branches of the Government service.

98. **Washaways and Slips.**—During the latter part of the year, exceptionally heavy rains fell, and while the traffic on the Main Line suffered no interruption, several washaways and slips occurred on the newer Branch Lines. In October the Umzinto Branch was blocked as the result of a severe storm causing a total suspension of traffic for three days.

99. On the Natal-Cape Line several interruptions were experienced in the Umkomaas Valley and at the 90 miles Post. These may be attributed to the heavy nature of the earthworks on this Branch, and the fact that the past was the first severe rainy season since the line was opened for traffic.

100. **Coal Contracts.**—On the 1st July new contracts for the supply of Locomotive and other coal for, in the majority of cases a period of two years, and in others an option to extend the 12 months' contract to that time, were entered into. The prices being paid are on the average 14 per cent. in excess of the late contracts. Coal is being drawn from all the principal collieries in the Colony.

101. During the last two years the following quantities of coal were obtained under Departmental Contracts, and distributed as shewn below :—

	1906.	1905.	Increase.
	Tons.	Tons.	Tons.
Railway Department ...	227,660	208,798	18,862
Harbour Department ...	33,041	27,256	5,785
Navy Coal ...	619	173	446
	<u>261,320</u>	<u>236,227</u>	<u>25,093</u>

102. **Fatal Accidents.**—It is satisfactory to record only one case of fatal accident to a passenger, a Basuto Transport Driver, who overbalanced himself whilst riding on a truck on a troop special.

103. **General Managers' Annual Conference.**—From 1st to 6th November, 1906, the Annual Conference of General Managers of South African Railways was held at Capetown. In addition to discussing various subjects of mutual interest, the interchange of views on other Railway matters, and the communication of results

of experimental working in several Departments, the whole of the recommendations of the Traffic and Accounting Officers' Conference held at Durban in September were finally dealt with.

CONCLUSION.

104. In conclusion I have special pleasure in testifying to the loyal help and assistance I have received from all the officers controlling the various departments of the Railway Administration under my charge and from the staff generally. Such cordial assistance and co-operation, coming from those to whom I was a complete stranger, and at a time when I had only just taken over charge from my distinguished predecessor, was doubly welcome and valuable.

I have the honour to be,

Sir,

Your obedient Servant,

EDWARD R. ROSS,
General Manager.



APPENDIX A.]

MAINTENANCE DEPARTMENT.

REPORT OF THE ENGINEER-IN-CHIEF FOR THE YEAR ENDING 31st DECEMBER, 1906.

THE GENERAL MANAGER OF RAILWAYS,—

I have the honour to submit my Annual Report on the Maintenance Department for the year ending 31st December, 1906.

1. The total length of Railway open for Traffic and maintained by this Department on the 31st December was 1,023½ miles, viz. :—

MAIN LINE—					
Durban to Transvaal Border ...	...	...	...	...	307½ miles.
POINT LINE—					
Durban to Point ...	...	...	...	...	1¾ "
NORTH COAST LINE—					
Durban to Verulam ...	...	...	...	...	19¼ "
Verulam to Tugela (Natal-Zululand Railway) ...	...	...	...	...	50 "
Tugela to Somkele (Zululand Railway) ...	...	...	...	...	98 "
SOUTH COAST LINE—					
South Coast Junction to North Shepstone ...	...	...	...	...	72½ "
BLUFF LINE—					
Clairmont to Wests ...	...	...	...	...	6½ "
UMZINTO BRANCH—					
Alexandra Junction to Umzinto ...	...	...	...	...	6½ "
RICHMOND BRANCH—					
Thornville Junction to Richmond ...	...	...	...	...	17 "
GREYTOWN BRANCH—					
Pietermaritzburg to Greytown ...	...	...	...	...	64¾ "
NATAL-CAPE BRANCH—					
Pietermaritzburg to Creighton ...	...	...	...	...	95 "
UPPER TUGELA BRANCH—					
Ennersdale to Los Kop ...	...	...	...	...	3¼ "
ORANGE RIVER COLONY BRANCH—					
Orange River Colony Junction to Van Reenen ...	...	...	...	...	35¾ "
Van Reenen to Bethlehem (Worked for C.S.A.R.) ...	...	...	...	...	88½ "
Bethlehem to Kroonstad ...	...	...	...	...	88½ "
DUNDEE-VRYHEID BRANCH—					
Glencoe Junction to Vryheid ...	...	...	...	...	59¼ "
Total Mileage ...				...	1,023½

2. The third section of the Natal-Cape Branch from Donnybrook to Creighton a distance of 15¼ miles was opened for general traffic on the 16th May, 1906.

3. The first section of the Upper Tugela Branch from Ennersdale to Los Kop a distance of 13¼ miles was opened for general traffic on the 1st June, 1906.

4. Under agreement with the C.S.A.R. the Natal Government Railways constructed the Bethlehem-Kroonstad Branch, and the line was opened for general traffic on the 21st June, 1906.

MAIN LINE IMPROVEMENTS.

5. During the year ending the 31st December, 1906, £66,577 was spent on the work of reducing Grades and Curves on the Main Line.

The following shews the position of the works at 31st December :—

Deviation Thornville Junction, Pietermaritzburg.—The first section, miles in length, between Umsindusi and Maritzburg was opened for Traffic on the 8th July.

Deviation South Coast Junction, Sea View, Bellair.—This deviation, $2\frac{1}{2}$ miles in length, is practically completed.

Deviation Hill Crest, Padleys.—This deviation, $1\frac{1}{4}$ miles in length, was opened for Traffic on the 9th December.

Deviations at 158, 160, and 167 miles, Main Line.—These deviations, $3\frac{3}{4}$ miles in length, were opened in sections, as follows :—

From 157 miles to 158, Heavitree Station, opened 17th June, 1906.

From 158 miles to $158\frac{1}{2}$, opened 22nd July, 1906.

From $158\frac{1}{2}$ miles to $159\frac{1}{4}$, opened 4th November, 1906.

RELAYING.

6. The following relaying work has been completed during the year :—

	$\frac{1}{2}$	mile between	$27\frac{1}{2}$	and	$27\frac{3}{4}$	miles, North Coast Line.
	$\frac{1}{2}$	"	$16\frac{3}{4}$	"	$17\frac{1}{4}$	" South Coast Line.
	2	"	$37\frac{3}{4}$	"	$39\frac{3}{4}$	" "
	$\frac{1}{2}$	"	$40\frac{1}{2}$	"	$40\frac{3}{4}$	" "
Total	...		$3\frac{1}{2}$			
			$\frac{1}{2}$			

7. Owing to an epidemic of Malarial Fever at the beginning of the year the relaying work on the North Coast Line had to be entirely stopped and the gangs dispersed.

8. Seven miles of 60 lb. type material are on order for the South Coast Branch, and five miles for the North Coast, and it is anticipated that the whole of this material will be placed in the road this financial year. This will only leave 3 miles of 45 lb. rails on the South Coast which have yet to be relaid.

A statement is appended in this Report, giving the mileage laid with different types of Permanent Way.

WATER SUPPLIES AND WATERING ARRANGEMENTS.

9. Owing to the financial position, very little expenditure was incurred during the year.

10. At Gillitts a new 50,000 gallon tank was completed, and the old 15,000 gallon tank was taken down and re-erected in Durban Yard.

11. At Hatting Spruit a Well was sunk down 25 ft. near the old bore hole. The experiment has been a success as there has been an ample supply for Locomotive purposes during the past dry season.

LANDSLIPS AND WASHAWAYS, 1906.

12. Very little trouble occurred in the early part of the year from Slips and Washaways, but on the opening of the wet season, towards the end of September, considerable delay was caused by Slips on the Natal-Cape Line. Stormy weather with torrential rains prevailed until the end of the year, and on the South Coast Line especially, the Permanent Way suffered severely. On September 20th a slight Slip was reported at 46 miles Natal-Cape Line, and on the 22nd similar trouble occurred at 72 miles on the same Branch. On 15th October owing to an abnormal storm in the Equeefa District, the South Coast Line at Alexandra Junction and the Umzinto Branch were completely blocked and through traffic on the South Coast was not resumed until the 19th, the Branch Line being cleared on the 22nd. The north approach to the Bridge at Alexandra Junction was washed away for a distance of 300 ft., but fortunately no damage was done to the structure. The Umzinto Branch was more or less damaged up to $48\frac{3}{4}$ miles; the Permanent Way being shifted in places from the formation, and at other spots entirely blocked by heavy boulders. It was only by the energetic steps taken by the Maintenance Officers to cope with the work of restoration that the Line was made passible within so short a time. On 16th October the Line was breached in places between Umfolosi and Somkele in Zululand, but no great damage was done and through traffic was early resumed. On 6th November washaways occurred on the Greytown Branch between $101\frac{1}{2}$ and $103\frac{1}{2}$ miles, the damage being heaviest at $102\frac{1}{2}$ and 103 miles. At the latter mileage the formation was completely washed away for 6 rail lengths, and the Ballast Train was kept running two days to fill up the gap. In order to keep traffic moving the road was slewed over and sleeper cribbing built up to support the rails, with the result that a minimum of delay resulted. During the same month (November) further slips and washaways were reported on the Natal-Cape Line at $7\frac{3}{4}$, $11\frac{1}{2}$, 13, $46\frac{3}{4}$ and $84\frac{1}{4}$ miles, but no serious delay to the train service resulted. Further trouble was experienced on the same Branch during December, owing to the continued rain causing Slips at $43\frac{1}{4}$, $52\frac{3}{4}$, 68, $69\frac{1}{2}$ and $92\frac{1}{2}$ miles. The Slip at $52\frac{3}{4}$ miles was extensive and the

Line was not opened for through traffic until 6th January, 1907. I regret to report, however, that on latter date a further Slip has occurred at 90 miles which from its appearance threatens to become a serious one. The expenditure incurred in connection with Slips and Washaways during 1906 amounted to £1,625.

SIGNALLING ARRANGEMENTS.

13. The construction of a new signal installation in Durban Yard has been carried out, which has centralized the whole of the working of the points and signals. This work was hitherto done by one large cabin, from which the Signals were worked and three smaller cabins from which the adjoining Points were worked.

14. With this new installation these small cabins were done away with and a Mechanical Interlocking Frame of 68 levers was erected in a central cabin. In these levers there are 26 working points and 39 working signals, the arrangement being laid down as nearly as possible to those in use on the Home Railways, and by the addition of other Signals has effected a saving of expense in the working of the yard.

15. Extensive arrangements are now in hand for the complete signalling of the Main and adjoining lines in Maritzburg Yard.

16. The signalling arrangements at various stations which have been carried out during the past three years have been found to work satisfactorily in the regulation of traffic.

PHOTOGRAPHIC DEPARTMENT, 1906.

17. The Photographic Section has carried out useful work for the various Departments of the Service. Nearly 4,000 photographs and photographic enlargements have been issued for advertising purposes. These have been supplied chiefly for public buildings and offices, the adornment of railway carriages, guide books, poster boards and the South African Exhibition.

RAILWAY NURSERIES, INCHANGA.

18. The following figures indicate the number of trees, shrubs, &c., despatched from the Nurseries since 1901 :—

1901	...	...	...	1,289.
1902	...	...	...	1,581.
1903	...	...	...	3,591.
1904	...	...	...	7,852.
1905	...	...	...	15,000.
1906	...	...	...	58,822.

19. It will be seen that the work done during 1906 is nearly four times greater than during the previous record year 1905. Trees (forest, fruit and ornamental) flowering shrubs, and plants, creepers, vines and verandah plants comprise what has been sent out to meet the applications received from the Staff.

20. The 50,000 hardwood trees, planted as an experiment on the 17 acres of ground adjoining the Nurseries, are doing well.

21. During the year, seed of the Oc. Viride and Oc. Grattisuma were planted, and the young plants will be ready for distribution in January, 1907. These plants, if possessing the merits attributed to them, will be of great benefit to Malaria infected districts as the trees are stated to drive the mosquitoes away.

22. The Department is indebted to many friends for contributions to the Nurseries.

ADDITIONS TO STATIONS AND BUILDINGS.

23. The following are some of the principal works carried out during the year :—

Point.—Sidings for Federal Cold Storage Co.

Durban.—Building for reception of Sponge Cloth Machinery erected. Ventilation of Workshops improved. Old Locomotive Paint Shop converted into Electric Office and Workshops. Extension of 11 and 12 Sidings completed. Extension of Siding to Union Street. Improving North Coast Starting Signals. 15,000 gallon Tank, Gillitts, re-erected in Durban Yard. Extension of sidings for corridor carriages. Verandah for Hydraulic Press. Blacksmith's Shop improved ventilation, verandah provided to protect dross coal.

Berea Road.—Sidings at 1½ miles for Colonial Oil Co. reconstructed.

Congella.—Drainage of Station Yard completed.

South Coast Junction.—Alterations to Sidings.

Hillarys.—Goods Shed and Siding provided.

Bowkers.—New Platform provided. This platform is 325 ft. long, and built with hollow concrete blocks as an experiment, completed on 25th October, 1906.

Bothas Hill.—Dwarf Lever provided.

Umsindusi.—Improvements to watering arrangements.

Pietermaritzburg.—Runaway Siding extended. Alterations to Parcels Office completed.

Hilton Road.—Extension of Office for Postal Department.

Balgowan.—Additional accommodation Staff Quarters.

Rosetta.—Station Buildings replaced after having been destroyed by fire.

Mooi River.—Erection of additional quarters.

Harts Hill.—Siding provided.

Ladysmith.—Improving Station Buildings, Station Yard Sidings relaid. District Store improved.

Hatting Spruit.—Alterations to Goods Loading Bank. New Well satisfactorily completed.

Alcocks Spruit.—Erection of Goods Shed, Siding to Goods Shed completed.

Newcastle.—Water Column at upper end of yard provided.

Ingogo.—Iron pipe line substituted for hose pipe.

O. R. C. BRANCH.

Aberfeldy.—Improvement to Water Supply and 1,000 gallon tank erected.

Harrismith to Bethlehem.—Road between 20 and 50 miles ballasted and improved. Six sets of Native Barracks provided.

Bethlehem.—Improvements to engine shed completed. Additional office accommodation provided. Water supply connected to town water main. Ladies' waiting room completed.

NORTH COAST RAILWAY.

Greyville.—Fencing north end of yard completed. Alterations to Coal Stage completed. Sewerage from barracks connected to Corporation Scheme.

Umgeni.—Clarkson & Bentley's Siding completed.

Greenwood Park.—European Shelter provided.

Verulam.—Indian Barracks removed to more healthy site.

21½ Miles.—Siding provided for Messrs. Johnstone & Bate.

53 Miles.—Siding for Colonel Addison provided.

Ginginhlovu.—Additional siding accommodation provided.

SOUTH COAST LINE.

Umlaas Siding.—Alterations to Sidings.

Isipingo.—Dead-end Siding extended.

Lower Umkomaas.—Extension of siding for engine, Engine Pit completed.

RICHMOND BRANCH.

Nels Rust.—Station Buildings and Quarters for Station Master erected.

Richmond.—Culverts enlarged.

NATAL-CAPE LINE.

Deepdale.—Latrine provided for coloured passengers. Rest House erected.

GREYTOWN BRANCH.

86 Miles.—New stopping place, "Notuli," provided.

Dalton.—Extension of Von Bulow's Siding.

STATEMENT OF NEW WORKS CARRIED OUT BY OR UNDER THE SUPERVISION OF THE MAINTENANCE DEPARTMENT DURING 1906.

24. The following figures shew the amount of new work carried out by or under the supervision of the Maintenance Department during 1906 :—

Relaying and Remodelling Yards	...	...	...	...	£714
Improving Branch Lines	...	...	...	...	9,714
New Buildings	...	...	...	...	842
European Quarters	...	...	...	...	Nil
Indian and Native Quarters	...	...	...	...	25
Improvements at or between Stations	...	...	...	...	1,296
Improving Buildings and Traffic Conveniences	...	...	...	...	656
Water Supplies	...	...	...	...	1,385
Lighting	...	...	...	...	148
Approaches, including Station Yards, Fencing, &c.	...	...	...	...	470
Signalling and Train Staff	...	...	...	...	3,217
Small Works under £100	...	...	...	...	1,334
Siding Extensions	...	...	...	...	4,310
Ladysmith Station, Goods Shed and Yard	...	...	...	...	930
Bridge Reconstruction	...	...	...	...	525
Reducing Grades and Curves on Main Line	...	...	...	...	66,577
Strengthening Main Line	...	...	...	...	3,208
Durban and Greyville Yards, Shops, &c.	...	...	...	...	9,574
Pietermaritzburg Maintenance, Locomotive Stores and Sheds	...	...	...	...	Nil
Charlestown Locomotive Yards, Sheds, &c.	...	...	...	...	Nil
Total					£104,925

COST OF MAINTENANCE.

25. The expenditure has been kept down in every possible direction compatible with the safety of the Line, and it will be seen from the statements enclosed, that, notwithstanding the heavy rolling stock now running over these lines and the taking over of new Branch Lines which always cause an increase of expenditure during the first rainy season, the Maintenance Expenditure per Open Mile is the lowest since the year 1899.

26. To shew the extraordinary difficulty in maintaining the severe sections of the Main Line, such as between Pinetown and Gillitts, it may be stated that it has been costing at the rate of approximately £300 per Open Mile annually over and above the ordinary up-keep of the Line. This abnormal expenditure has been due to the wear of rails on the curves, necessitating frequent changes of rails, and to the breakage of the cast iron guard rail chairs.

27. This heavy expenditure is being overcome by the substitution of steel in place of cast iron chairs, and replacing the 45 lb. type guard rails by 78 lb. second hand rails released from the Main Line. 27,200 steel guard rail chairs or nearly 50 per cent. of the total have already been placed in the road with excellent results. The chairs have been in the road for over 12 months with practically no breakages, whilst the cast iron guard chairs have been breaking at the rate of 29 per cent. per annum.

28. When relaying the Main Line with 78 lb. rails and cast iron guard chairs was commenced in 1896, the heaviest Locomotive weighed 45 tons and the heaviest trucks 34 tons gross, whereas Tender Engines (tender included) weighing 105 tons and trucks weighing 50 tons gross are now in daily use.

MAINTENANCE OF BRANCH LINES—REDUCTION OF EXPENDITURE.

ZULULAND LINE.

29. In order to keep down expenditure the "Flying Gang" system was introduced on the Ginginhlovu-Somkele Section, a distance of 78 miles on the 7th September. Up to that date the section was supervised by 7 Platelayers, each Platelayer having 10 Natives. Under the "Flying Gang" system two Platelayers with 16 Natives each will work from each end of the section until they meet, and they will then work their way back. These Platelayers will be assisted by a relieving Platelayer with a gang of 12 Natives, who will have Ginginhlovu as their head quarters. If the experiment is a success the estimated annual saving will be £1,134. The section chosen for the experiment is a very suitable one as there is only a tri-weekly train service, and the gradients and curves are comparatively light.

SOUTH COAST LINE.

30. Owing to the progress made in relaying this Branch with 60 lb. type material, it has been possible to increase the Platelayers' lengths to 9 miles, thus releasing 6 Platelayers and 15 Natives at an annual estimated saving of £1,485.

NORTH COAST LINE.

31. This line being in good condition and a further commencement having been made with relaying with 60 lb. material, it has been possible to increase the Platelayers lengths to 6 miles, thus releasing 2 Platelayers and 28 Natives at an estimated saving of £1,104 per annum.

VRYHEID BRANCH.

32. The earthworks on this Branch Line having become consolidated and the train service being small, it has been possible to release 3 Platelayers and 24 Natives at an estimated saving of £1,116 per annum.

GREYTOWN BRANCH.

33. The earthworks, &c. on this Branch having become consolidated, it has been possible to reduce the number of Platelayers by 3 at an estimated annual saving of £504.

NATAL-CAPE BRANCH.

34. Owing to the earthworks having become consolidated and to the small train service, 4 Platelayers and 16 Natives have been released at an estimated saving of £1,028 per annum.

RICHMOND BRANCH.

35. Owing to the good condition of this Line it has been found possible to release one Platelayer and 5 Natives at an annual saving of £315.

SUMMARY.

Railway.	Platelayers released.	Natives and Indians dispensed with.	Estimated Annual Saving.
Zululand Line ...	5	11	£1,134
North Coast Line ...	2	28	1,104
South Coast Line ...	6	15	1,485
Vryheid Branch ...	3	24	1,116
Greytown Branch ...	3	...	504
Natal-Cape Line ...	4	16	1,028
Richmond Branch ...	1	5	315
Totals ...	24	99	£6,666

36. The Platelayers so released have been utilised in filling up vacancies caused by deaths, resignations, &c., and in manning the Bethlehem-Kroonstad Branch. If these Platelayers had not been available it would have been necessary to have taken on new men.

STAFF.

The Maintenance Staff at 31st December, consisted of the following :—

	1906.	1905.
Europeans ...	530	478
Indians ...	1,226	967
Natives ...	1,759	1,384
Total ...	<u>3,515</u>	<u>2,829</u>

The increase is due to increased mileage opened for traffic.

For the year 1905 it was my pleasing duty to record that there had not been a single death or serious injury, amongst the European Maintenance Staff, but for 1906, I exceedingly regret having to report the deaths of the following members :—

Mr. Leonard Brereton, Maintenance Engineer, died on 21st August, 1906, at the age of 50. He was first employed on the Natal Railways under Messrs. Perry & Co. in 1882 on the construction of the line between Pietermaritzburg and Ladysmith. In 1894 he was appointed Maintenance Engineer, and he held this position up to the time of his death.

Mr. George Guillod, Clerk of Works, Durban, died on 30th September at the age of 61. He joined the service on 1st October, 1888 as Draughtsman, and was promoted Clerk of Works, Durban, on 1st January, 1890, which position he held until his death.

Mr. John H. Golbourne, Maintenance Bookkeeper, Pietermaritzburg, died on 7th November at the age of 38 years. Joined the Department as Bookkeeper on Reconstruction on 8th June, 1900,

Mr. William H. Bevis, Permanent Way Inspector, Pietermaritzburg, died on 12th November, 1906 at the age of 59. He joined the service on 1st June, 1879, as Platelayer, and was promoted Inspector on 1st April, 1883.

Mr. Hugh McGlinn, Foreman Platelayer, died on 18th October, 1906, after having been in the service since May, 1903.

Mr. E. E. Norman, Carpenter, who had been in the service of the Department at Durban for a number of years, died 16th December, 1906.

GOOD SERVICE RENDERED BY THE STAFF.

I wish to place on record my appreciation of the good services rendered by the Staff of all grades, during the year.

CERTIFICATE RESPECTING PERMANENT WAY WORKS AND BUILDINGS.

I hereby certify that the whole of the Permanent Way, Bridges, and Culverts on the Main and Branch Lines were during the year 1906 maintained in good working order and repair, and that the buildings were kept in as good a condition as the reduced Votes would permit.

RENEWALS.

The following are the Rail and Sleeper Renewals for the year 1906.

RAILS.				
		61 lb. type.	78 lb. type.	Total.
Main Line	...	138	2,114	
South Coast Line	...	16	—	
Bluff Line	...	176	—	
		330	2,114	<u>2,444</u>

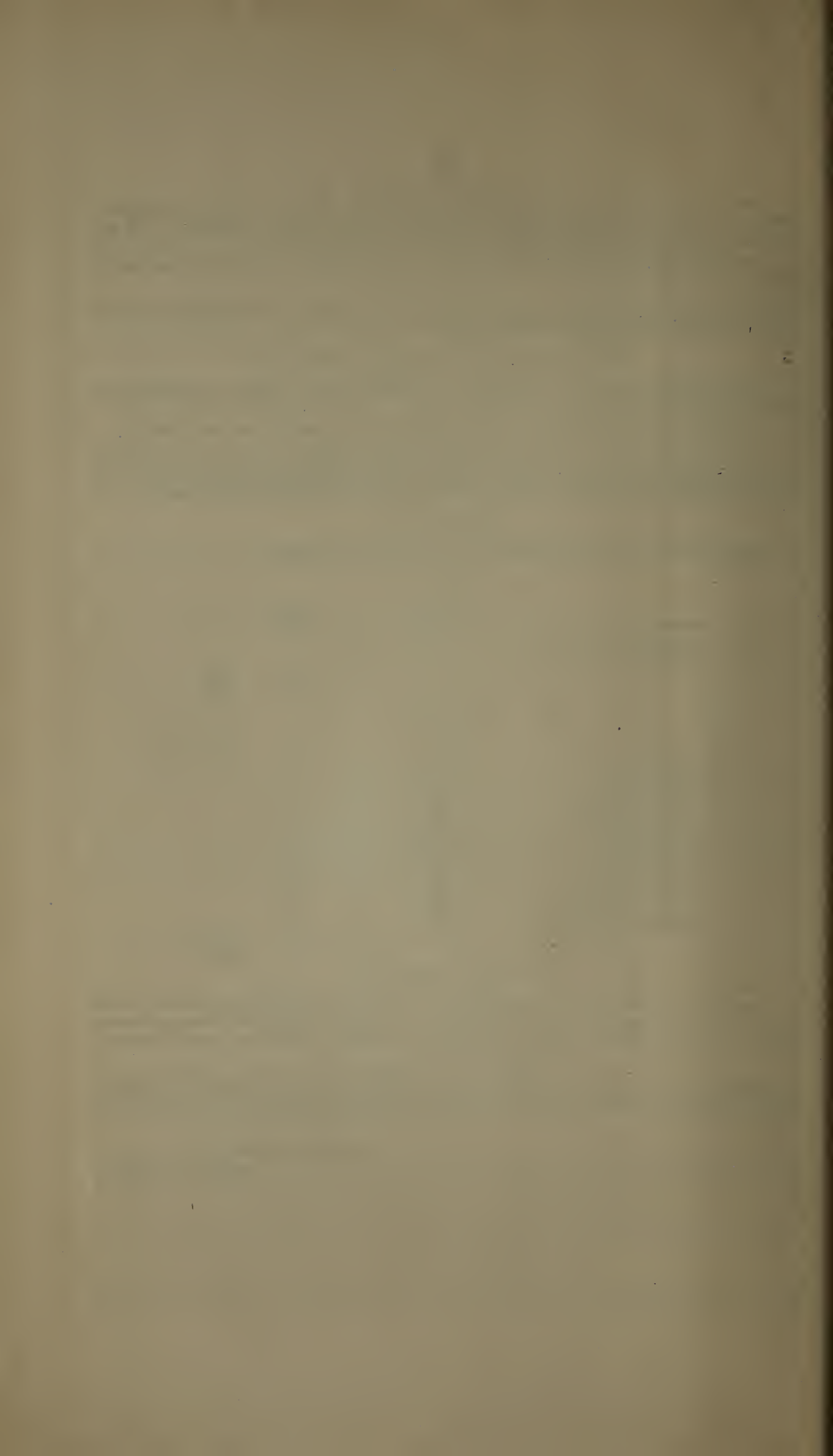
SLEEPERS.				
		Wood.	Iron.	Total.
Main Line	...	22,894	—	
South Coast Line	...	3,796	—	
Umzinto Line	...	349	—	
Bluff Line	...	1,056	—	
North Coast Line	...	501	—	
Natal-Zululand Line	...	2,059	—	
Zululand Line	...	813	—	
Richmond Line	...	985	—	
Greytown Line	...	4,303	—	
Dundee Line	...	1,036	—	
Buffalo Vryheid Line	...	164	—	
Van Reenan Line	...	392	382	
Orange River Colony Line	...	3,334	—	
Harrismith-Bethlehem Line	...	1,501	—	
				<u>43,565</u>

BALLAST RENEWALS.

The quantity of New Ballast supplied between January and end of June, 1906 was 7,856 cubic yards. Contracts were let for the supply of 2,500 cubic yards for Renewals for the financial year 1906-7, of which quantity 1,500 yards have been supplied to end of December, 1906.

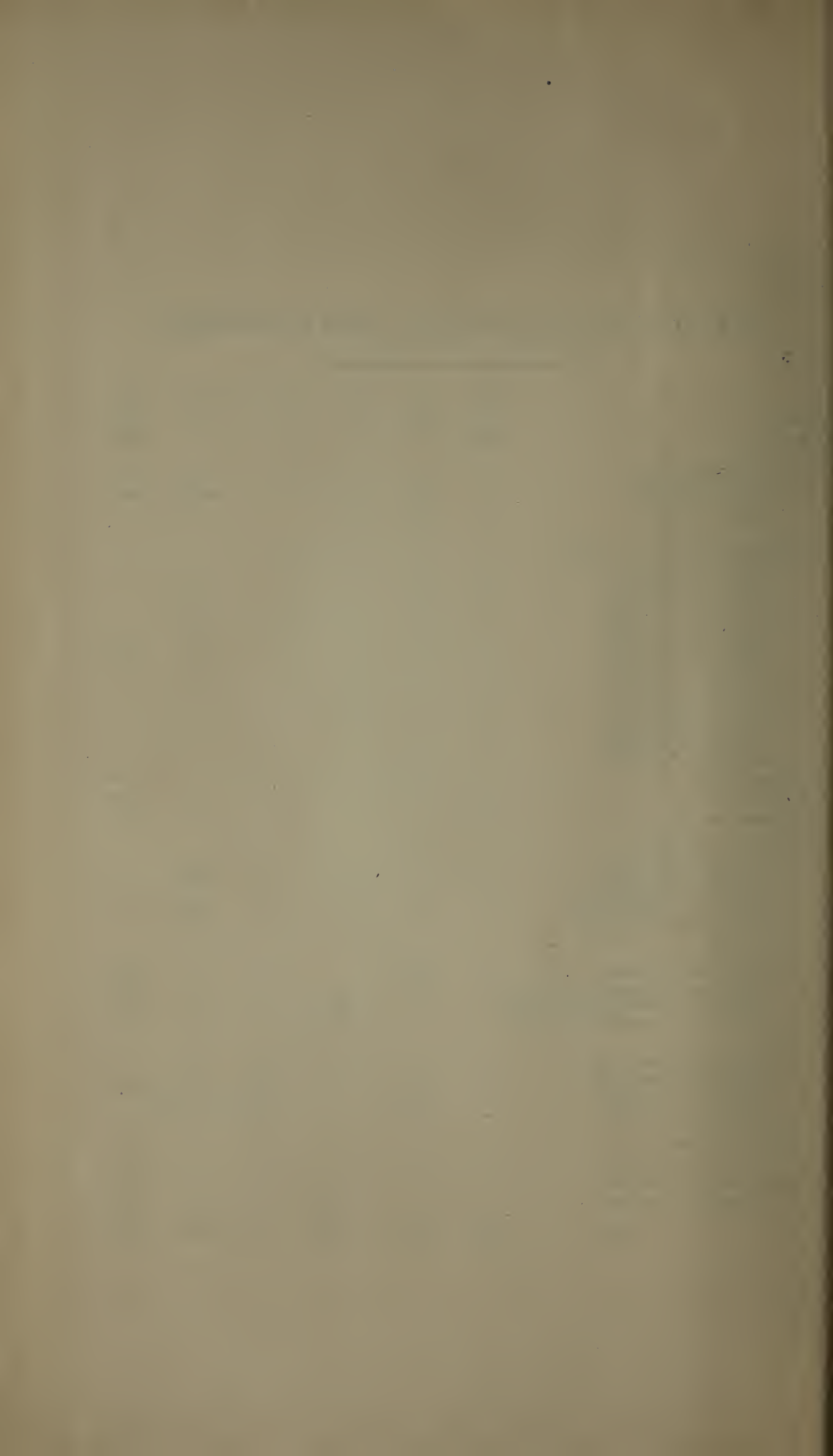
Ballast is also being broken by Rebel Prisoners at three quarries. The quantity broken to end of December being 5,300 cubic yards, making a total of 14,656 cubic yards for Renewals for the year.

JOHN W. SHORES,
Engineer-in-Chief.



MILEAGE LAID WITH DIFFERENT TYPES OF MATERIAL.

	78 lb.	61 lb.	60 lb.	46 lb.	45 lb.	Total
Point	—	13 $\frac{3}{4}$	—	—	—	13 $\frac{3}{4}$
Main Line	307 $\frac{1}{4}$	—	—	—	—	307 $\frac{1}{4}$
NORTH COAST LINE—						
Durban to 28 $\frac{1}{2}$ miles ...	—	28 $\frac{1}{2}$	—	—	—	167 $\frac{1}{4}$
28 $\frac{1}{2}$ miles to Tugela ...	—	—	—	—	40 $\frac{3}{4}$	
Tugela to Somkele ...	—	98	—	—	—	
SOUTH COAST LINE—						
South Coast Jctn. to Isipingo	—	7	—	—	—	72 $\frac{1}{4}$
Isipingo to 12 $\frac{1}{4}$ miles ...	—	—	—	—	1	
12 $\frac{1}{4}$ miles to 12 $\frac{3}{4}$ miles ...	—	$\frac{1}{2}$	—	—	—	
12 $\frac{3}{4}$ miles to 16 $\frac{1}{2}$ miles ...	—	—	—	—	3 $\frac{3}{4}$	
16 $\frac{1}{2}$ miles to 17 $\frac{1}{4}$ miles ...	—	—	3 $\frac{3}{4}$	—	—	
17 $\frac{1}{4}$ miles to 24 $\frac{1}{2}$ miles ...	—	7 $\frac{1}{4}$	—	—	—	
24 $\frac{1}{2}$ miles to 29 $\frac{3}{4}$ miles ...	—	—	—	—	5 $\frac{1}{4}$	
29 $\frac{3}{4}$ miles to 32 $\frac{1}{4}$ miles ...	—	—	2 $\frac{1}{2}$	—	—	
32 $\frac{1}{4}$ miles to 38 miles ...	—	5 $\frac{3}{4}$	—	—	—	
38 miles to 39 $\frac{3}{4}$ miles ...	—	—	1 $\frac{3}{4}$	—	—	
39 $\frac{3}{4}$ miles to 40 $\frac{1}{4}$ miles ...	—	$\frac{1}{2}$	—	—	—	
40 $\frac{1}{4}$ miles to 40 $\frac{3}{4}$ miles ...	—	—	$\frac{1}{2}$	—	—	
40 $\frac{3}{4}$ miles to 76 $\frac{1}{2}$ miles ...	—	35 $\frac{3}{4}$	—	—	—	
Umzinto Branch	—	6 $\frac{1}{2}$	—	—	—	6 $\frac{1}{2}$
Bluff Line	6 $\frac{1}{2}$	—	—	—	—	6 $\frac{1}{2}$
Richmond Branch	—	—	—	—	17	17
GREYTOWN BRANCH—						
70 $\frac{1}{2}$ miles to 81 $\frac{1}{2}$ miles ...	—	11	—	—	—	64 $\frac{3}{4}$
81 $\frac{1}{2}$ miles to 119 $\frac{3}{4}$ miles ...	—	—	—	—	38 $\frac{1}{2}$	
119 $\frac{3}{4}$ miles to 121 $\frac{1}{2}$ miles ...	—	$\frac{1}{2}$	—	—	—	
121 $\frac{1}{2}$ miles to 123 $\frac{3}{4}$ miles ...	—	—	—	—	2 $\frac{1}{4}$	
123 $\frac{3}{4}$ miles to 135 $\frac{1}{2}$ miles ...	—	11 $\frac{3}{4}$	—	—	—	
O.R.C. BRANCH—						
Junction to Van Reenen	—	35 $\frac{3}{4}$	—	—	—	35 $\frac{3}{4}$
Van Reenen to Harrismith (C.S.A.R.)	—	23 $\frac{1}{2}$	—	—	—	23 $\frac{1}{2}$
Harrismith to Bethlehem (C.S.A.R.)	—	—	65	—	—	65
Bethlehem to Kroonstad (C.S.A.R.)	—	—	88 $\frac{1}{2}$	—	—	88 $\frac{1}{2}$
DUNDEE BRANCH—						
231 $\frac{1}{2}$ miles to 232 $\frac{1}{2}$ miles ...	—	1	—	—	—	59 $\frac{1}{4}$
232 $\frac{1}{2}$ miles to 239 miles ..	—	—	—	6 $\frac{1}{2}$	—	
239 miles to 256 $\frac{1}{4}$ miles ...	—	17 $\frac{1}{4}$	—	—	—	
256 $\frac{1}{4}$ miles to Vryheid ...	—	—	—	34 $\frac{1}{2}$	N.Z.A. } S.M.	
NATAL-CAPE LINE—						
P.M.Burg to Creighton ...	—	95	—	—	—	95
UPPER TUGELA RAILWAY—						
Ennersdale to Los Kop ...	—	—	13 $\frac{1}{4}$	—	—	13 $\frac{1}{4}$
Total	313 $\frac{3}{4}$	388 $\frac{1}{4}$	172 $\frac{1}{4}$	41	108 $\frac{1}{4}$	1,023 $\frac{3}{4}$



APPENDIX B.]

SURVEYS AND CONSTRUCTION DEPARTMENT.

 REPORT OF THE ENGINEER-IN-CHIEF FOR THE YEAR ENDED
31st DECEMBER, 1906.

GENERAL MANAGER,—

I have the honour to submit a Report on the Survey and Construction Department for the Year ended 31st December, 1906.

2. The various Surveys and Works have been under the direction of Mr. W. H. Cobley, Superintendent Engineer of the Surveys and Construction Department, with the following Engineers and Surveyors in charge :—

Mr. A. J. HUMBY, Main Line Improvements and Stuartstown Railway.

Mr. G. R. HOLGATE, Resident Engineer, Bethlehem-Kroonstad Railway, transferred to Maintenance Department 1/10/06.

Mr. D. E. P. HEAD, Natal-Cape Railway and Upper Tugela Railway.

Mr. W. L. GRANTHAM, Upper Tugela Railway (resigned 17/12/06).

Mr. G. S. COAKES, Dronk Vlei-Riverside, Main Line Improvements and Hlobane Railway Surveys (resigned Feb., 1907).

Mr. J. FERGUSON, Weenen 2 ft. Gauge Railway.

Mr. A. R. MACKENZIE, Stuartstown Railway (resigned 31/1/07).

Mr. C. G. BATEMAN, Alfred County Railway.

Mr. W. H. SHARPE, Head Office Staff.

SURVEYS.**MAIN LINE IMPROVEMENTS.****Pinetown to Gilletts.**

3. A Report shewing how a 1 in 50 compensated Line, including the difficult section near Fields Hill, was submitted under date of 5/3/06. (E.C.R. 859/06).

Ladysmith-Estcourt.

4. Various minor improvements which may be required to take the full load up a 1 in 50 compensated grade have been reported on under date of 14/1/07. (E.C.R. 859/06).

Lidgetton-Hilton Road.

5. Surveys have been carried out for a 1 in 50 compensated grade.

6. The Estimates for improving the grade against "Up" traffic have been kept separate from those for "Down" traffic, and a detailed Report was sent in on 2/2/07. (E.C.R. 142/07).

Dronk Vlei-Riverside Surveys.

7. Further Surveys have been carried out and eventually it was decided that the Combination Route was to be adopted crossing the Ingwagwane River at a point 8.2 miles from Creighton Station and 3.8 miles below Riverside making a total distance from Creighton Station to the Terminus of 12 miles.

Hlobane Railway Surveys.

8. The Hlobane Railway Act was promulgated on 21st December, 1906.

9. A Survey Party proceeded to Vryheid to make preliminary investigations with a view to deciding on the route to be finally adopted.

Expenditure on Surveys.

10. The sum of £1,765 18s. 10d. has been expended under the Survey Vote during the year ended 31st December, 1906, and of this amount £17 5s. 8d. has been reimbursed to Revenue from Loan Funds.

CONSTRUCTION.**Natal-Cape Railway, 107 Miles.**

11. The Third Section of this Line from Donnybrook (80 miles) to Creighton (95 miles) was opened for Public Traffic on the 16th May, 1906.

Expenditure.

12. The total expenditure on this Line to 31st December, 1906, was £791,790 15s. 2d., of which £20,372 5s. was spent during the year 1906.

13. No actual construction work has yet taken place beyond Creighton pending the prolonged discussion that is taking place between the Cape and Natal Governments.

Upper Tugela Railway, 40 Miles.

14. The First Section, Ennersdale to Los Kop, $13\frac{1}{4}$ miles, was opened for public traffic on 1st June, 1906.

15. The Line, which is laid with new 60 type rails of the British Standard Section, 6-hole Angle Fish Plates, Plate Chairs, Creosoted Sleepers, and first class broken stone ballast, has a maximum grade of 1 in 50 compensated with minimum curves of about 700 ft. radius, over which a maximum speed of 30 miles per hour is authorised.

16. Instructions were received in February, 1906, to start work on the Second Section, Los Kop to Springfield (11 miles), and work was immediately put in hand under the Departmental System.

17. This Section also has a maximum grade of 1 in 50 compensated and minimum curves of 700 ft. radius.

18. The Earthworks have been comparatively light, but the Masonry work has been somewhat heavy.

Platelaying and Ballasting.

19. The rails, which are the same as those used on the First Section, began to arrive in the Colony in October, about 9 months after the order was given for them.

20. Prices for the Linking-in, &c., were duly called for and the rails reached Springfield Station about the middle of January; and the ballasting is in hand.

Fencing.

21. The Fencing Material has all been received, and a start has been made with the erection of it.

Loco. Water Supplies.

22. A Hand Pump and six 400-gallon Tanks are arranged for at the Irrigation Furrow, Springfield.

Stations.

23. The following Station accommodation is being provided:—

NOODHULP STOPPING PLACE (say $21\frac{3}{4}$ miles)—Shelter, wood and iron.

WINTERTON (TERMINUS).—Station Building (wood and iron) consisting of General Office, 14 ft. x 25 ft.; General Waiting Room, 10 ft. x 14 ft.; Lavatory and W.C., with verandah on three sides; Engine Shed, Goods Shed (wood and iron), with the rails laid right through; Native Shelter, Lamp Room, European and Native Latrines; Station Master's House, (brick); Platelayer's Cottage, married type (brick); and two sets of Indian Barracks, one for Traffic and one for Maintenance, 2 and 5 rooms respectively.

24. The material for the above Buildings has been ordered, and the erection will be carried out under the Departmental System.

Expenditure.

25. The total Expenditure on this Line to 31st December, 1906, is:—

First Section	...	...	...	...	£69,878 15 5
Second Section	...	...	...	...	£28,625 0 11

ALFRED COUNTY RAILWAY, $6\frac{1}{2}$ MILES.

FIRST SECTION—NORTH SHEPSTONE TO SOUTH SHEPSTONE STATION, 2 MILES.

Umzimkulu Bridge.

26. The tender of Messrs. Guy & Holbrook for the erection of this Bridge, which consists of 17 Spans of 60 ft. and one span of 25 feet, and for those on Section No. 2, was accepted on 2nd April, 1906.

27. The temporary Bridge consisting of timber piles with rail decking was completed by about the end of June.

28. The permanent Cast Iron Screw Piles were screwed in place by the end of September, and at the end of the year nearly the whole of the iron-work was in place.

29. On the 4th May, instructions were received that the Umzimkulu Bridge should be converted into a combined Road and Railway Bridge.

30. The Earthworks in the wagon road approaches and the concrete in Culvert are well in hand, and reinforced concrete slabs have been ordered from Messrs. J. Wright & Sons, South Coast Junction, for the flooring of this bridge.

Platelaying and Ballasting.

31. The permanent way consists of new 60 lb. rails of the British Standard Section, 6-hole angle fish plates, plate chairs and creosoted sleepers.

32. The platelaying and ballasting from the junction of existing Line to the Umzimkulu Bridge was carried out by Day Labour.

Stations.

33. The following Stations have been arranged for, but the final details have not yet been agreed upon :—

Existing temporary North Shepstone Station to be abandoned.

St. Faith's Road Stopping Place to be called North Shepstone Stopping Place. Siding accommodation to be provided.

South Wharf Stopping Place with sidings and facilities for dealing with river borne traffic.

South Shepstone Station—for general traffic.

Beach (temporary Terminus).

Second Section—South Shepstone Station (2 Miles) to Beach Terminus (6½ Miles).

34. The Earthworks and Concrete Work on this Section have been carried out Departmentally and were practically finished by the end of March, 1906.

35. In November, instructions were received that the rails were not to be laid beyond South Shepstone Station, but in January of this year (1907) we were instructed to have them linked-in as far as the Beach Terminus.

Expenditure.

36. The Estimate of the Section from North to South Shepstone including the Umzimkulu Bridge, a distance of 2.3 miles, was £41,770.

37. The Estimate from the South Shepstone Station to the Beach Terminus (4.1 miles) was £20,630.

38. The total Expenditure on this Railway to 31st December, 1906, was £51,802 17s. 7d.

Proposed Extension from Beach Terminus to Marburg Commonage.

39. In accordance with instructions received at the end of March a trial survey was made from the Beach Terminus to Marburg Commonage, and a route with maximum grade of 3% compensated with minimum curves of 400 ft. radius, giving a distance of 3.6 miles was obtained.

40. The approximate Estimate is £14,900 exclusive of a Terminal Station and Sidings, the cost of which is included in the Estimate to the Beach Terminus, and would be transferred to Marburg.

41. No instructions have up to date been received to proceed with this Extension.

Weenen 2 Ft. Gauge Railway (28¾ Miles).

42. Prices for Earthworks and Masonry on the second Section, 17½ miles to Weenen, were received and accepted in January, 1906, and the work, which was done under the Departmental System, was practically completed at the end of June, excepting the heavy work at the Tiger Kloof.

Rolling Stock.

43. The two Engines, which are six-wheeled coupled Tank Engines, six low-sided pressed steel wagons, two cattle trucks, and two Covered Goods Trucks were received in April, 1906.

44. Two First and Second Class Compo. Carriages, two Third Class Carriages, and two Brake Vans were received about the middle of October, 1906.

45. Owing to the six low-sided wagons being insufficient for Construction purposes, the two Cattle Trucks were converted into temporary low-sided wagons. Six wooden Trucks were afterwards made, and the bogies from the carriages were placed under the same, making in all 14 low-sided trucks.

46. The Engines and low-sided Trucks have so far worked satisfactorily. Loads behind these engines of from 70 to 80 tons have been hauled up the 3% grades.

Platelaying and Ballasting.

47. The permanent way material consists of 35 lb. steel rails, six-hole Fish Plates, Plate Chairs, and Creosoted Sleepers, 5 ft. 6 in. by 8 in. by 4 in. The ballast consists of part first class broken stone and part of a more temporary nature.

48. The Linking-in was started about the end of May and the Sidings in the temporary Depôt at Estcourt were put in and the rails laid as far as the Little Bushman's River Bridge where the Linking-in was stopped some considerable time during the erection of the Bridge.

49. The rails reached Half-Way House in August when it was thought advisable to stop Linking-in and get some of the ballasting done.

50. Owing to the outbreak of East Coast Fever it was arranged to work Goods Traffic between Estcourt and Half-Way House, and a start was made with such traffic on October 4th.

51. Considerable delay to the Construction Work was caused owing to the limited amount of Engine Power and Rolling Stock available.

52. The Linking-in was re-started on 29th October, 1906, and the rails reached Weenen Terminus on December 11th.

53. The maintenance of the Line between Estcourt and Half-Way House (18 miles) under the Construction Department commenced on January 1st, 1907.

54. The Ballasting between Half-Way House and Weenen is well in hand.

Bridges.

55. The following is a list of Bridges :—

LITTLE BUSHMANS RIVER BRIDGE.—4 spans of 40 ft., second-hand Lattice Girders from Coast Lines with Masonry Piers and Abutments.

OATES SPRUIT BRIDGE.—One 40 ft span, second-hand Lattice Girders from Coast Lines with Masonry Piers and Abutments.

INYANDU SPRUIT BRIDGE.—Two 40 ft. spans, second-hand Lattice Girders from Coast Lines with Masonry Piers and Abutments.

AMANZIMYANA SPRUIT BRIDGE.—Two 40 ft. spans, second-hand Lattice Girders from Coast Lines with Masonry Piers and Abutments.

TIGER KLOOF.—One 15 ft. arch.

Stations.

56. The undermentioned Stations have been arranged for :—

ESTCOURT.—The Weenen Line commences in the Station Road opposite the existing Passenger Station which will be utilised for the accommodation of Passengers. A Goods and Transfer Siding has been laid to serve the existing Goods Platform. A transshipping platform has been laid alongside the Standard Gauge Siding over which a wood and iron shed will be built. Double-road Engine Shed, Turntable, Coaling Platform, Platelayer's House (wood and iron, married type), and Indian Barracks (3 rooms, wood and iron) have been erected.

SCHEEPERS STOPPING PLACE (4¾ miles).—Shelter (wood and iron).

PENISTON STOPPING PLACE (6½ miles).—Shelter (wood and iron). Double Dead End Siding.

HAVILAND STOPPING PLACE (10 miles).—Shelter (wood and iron), Double Dead End Siding, Platelayers' Cottage, Indian Barracks.

OATLANDS STOPPING PLACE (14¾ miles).—Shelter (wood and iron), Double Dead End Siding, Platelayer's Cottage, Indian Barracks.

HALF-WAY HOUSE (17½ miles).—Shelter, Double Dead End Siding.

MONA (24 miles).—Shelter, Double Dead End Siding, Platelayer's Cottage (single), Indian Barracks.

NEW FURROW (27¼ miles).—Shelter, Double Dead End Siding.

WEENEN TERMINUS (28¾ miles).—Station Building (wood and iron) consisting of Booking and Telegraph Office, Ladies' Waiting Room, &c. Goods Shed (30 ft. x 20 ft.), Goods Platform, 260 ft.; Station Master's House (brick), Platelayer's Cottage (married, wood and iron), Staff Quarters consisting of 4 bedrooms, dining room, kitchen and pantry; Indian Barracks (3 rooms), European and Native Latrines, Triangle, Engine Shed (Single Line).

Fencing.

57. Considerable difficulty has been experienced in regard to keeping Cattle from getting out of the fenced-in Paddocks by means of Cattle Guards, and the question of fencing the Line, either as a whole or in part is still under consideration.

Water Supplies.

58. The following Water Supplies have been arranged :—

ESTCOURT.—Gravitation Supply with Water Column from Main Line Supply.

DEEP KLOOF.—Hand Pump from Dam with concrete wall.

AMANZIMYANA.—Hand Pump from Well alongside the Spruit.

WEENEN TERMINUS.—Gravitation Supply from New Furrow.

Expenditure.

59. The original detailed Estimate was £117,000 including Rolling Stock. This was afterwards reduced to £90,000.

60. The Expenditure to the 31st December, 1906, was £81,574 12s. 1d.

Opening to Weenen.

61. The opening to Weenen which has been considerably delayed by the working of Goods Traffic between Estcourt and Half-Way House and the extraordinary heavy rains, is expected to take place in April, 1907. In the meantime it has been arranged to work Goods Traffic over the whole of the Line, by direction of Government, as a result of the further restrictions which have had to be imposed by reason of the spread of East Coast Fever.

STUARTSTOWN RAILWAY.

Esperanza to Donnybrook.

62. The name of the firm to whom the Lump Sum Contract of £292,500 was let under date of 29th November, 1905, has been changed from Messrs. Pauling & Co. to the Transvaal Engineering and Contracting Co.

63. This Lump Sum Contract includes the Surveys, Construction, Equipment and working of the Line for a period of two years after final completion.

64. The final surveys carried out by the Contractors have been submitted from time to time for approval and the survey of the final section was only received on 8th February, 1907; and the total mileage from Esperanza to the Junction with the Natal-Cape Line near Donnybrook is about 97 miles.

65. The maximum grade allowed under the Conditions of Contract is 3% compensated, or 1 in 33, with minimum curves of 175 ft. radius in special cases.

66. The designs of the works generally, including Rolling Stock, are based on those of the Weenen Railway which has been carried out by this Department.

Earthworks and Masonry.

67. An actual start was made with the Earthworks on the Western Section between Donnybrook and Kununata on 24th May, 1906, and on the Eastern Section, Esperanza to Kununata, on 13th June, 1906.

68. The Earthworks as a rule are somewhat heavy, but the nature of the material is fairly easy.

69. The Masonry both for Bridges and Culverts is generally speaking extremely light.

70. At the end of January, 1907, about 45 miles of Earthworks and about 23 miles of Masonry had been carried out.

Platelaying and Ballasting.

71. About 70 miles of Permanent Way Material has been received, most of which has been stacked at the Esperanza end, the balance being stacked at the Donnybrook end.

72. The rails are 35 lb. to the yard, the same type as those on the Weenen Line, and manufactured in Germany.

73. The sleepers are the same size as those on the Weenen Railway, namely, 5 ft. 6 ins. by 8 ins. by 4 ins., but are of D'jatti Wood from the Dutch East Indies.

74. In the Equeefa Valley on 15th October, 1906, considerable damage was done on the Eastern Section owing to the extraordinary rain-fall that took place on that date, when it is estimated that over six inches fell within an hour in that Valley.

Junction at Donnybrook.

75. It was decided on 16th October, 1906, that the Contractors should lay a third rail from Donnybrook Station along the Natal-Cape Line to a point where the Stuartstown Line diverges therefrom, a distance of 2.59 miles, in connection with which the Contractors were to allow the sum of £1,000 per mile, or say £2,590.

Stations.

76. The details of the Stations and Stopping Places have not yet been decided upon.

Expenditure.

77. The Estimate based on the Lump Sum Contract of £292,500, including Law and Land, cost of former Surveys, Supervision and Rolling Stock amounts to £310,000, or, say, £3,195 per mile for the 97 miles, including Rolling Stock.

78. The expenditure to the end of December was £19,667 0s. 8d. The Contractors only receive in cash 50% of the amount due, the balance being held over in terms of the Contract.

BETHLEHEM-KROONSTAD RAILWAY.

Platelaying and Ballasting.

79. The Linking-in, which was started at both ends, namely, Bethlehem and Kroonstad, was joined up on 15th February, 1906.

80. Immediately afterwards a certain amount of traffic was worked over the Line at the request of the Management.

Inspection.

81. An Inspection was made on the 22nd, 23rd and 24th May, 1906, and the Line was opened for Public Traffic on the 21st June with restricted speed, pending the completion of the ballasting.

82. The ballasting which is generally of a cheap and inferior nature with only a very small amount of broken stone, was practically completed in September.

Fencing.

83. This has been carried out with old metal sleepers obtained from the C.S.A.R. to be used as standards, and the erection was practically finished at the end of the year, very considerable delay having occurred in obtaining materials.

Loco. Water Supplies.

84. Considerable difficulty was experienced in connection with obtaining adequate Water Supplies without any great expenditure, and a number of bore holes were put down for testing purposes.

85. The following is a List of the supplies which were nearly completed at the end of the year :—

VALSCH RIVER.—Deep Well Steam Pump from Well near River to a 29,000 gallon tank ; 6 in. Water Column, Pump House, and Rest House for Pumpman.

LINDLEY ROAD.—Deep Well Steam Pump from Well about $\frac{1}{4}$ mile on the Kroonstad side of the Station, Pump House and Pumpman's Cottage ; 10,000 Gallon Tank, Water Column.

LOVAT.—Deep Well Steam Pump from Well about $\frac{1}{4}$ mile from the Line ; 10,000 Gallon Tank, Water Column.

WONDERKOP.—Deep Well Steam Pump from Well about $\frac{1}{4}$ mile from the Line ; Pump House and Rest House for Pumpman ; 29,000 Gallon Tank, Water Column.

Stations.

86. The following are the details of the Stations and Stopping Places which were practically completed at the end of the year :—

BETHLEHEM.—Platelayer's Cottage, Native Barracks, Loco. Inspector's House (stone), Loco. Inspector's Office (wood and iron), Loco. Store and Workshop, 3 sets of semi-detached Quarters, European and Native Latrines, Extension of Engine Shed, Engine Pits, Sidings.

MEETS STOPPING PLACE (7 miles).—Shelter (wood and iron), Name Board, Platelayer's Cottage, Native Barracks.

VALSCH RIVER (16 $\frac{1}{2}$ miles).—Shelter (wood and iron), Name Board ; Platelayer's Cottage, Native Barracks, Loop Siding.

KAALLAAGTE STOPPING PLACE (22 $\frac{1}{4}$ miles).—Shelter, Name Board, Platelayer's Cottage, Native Barracks.

KAFFIR KOP STOPPING PLACE (28 $\frac{1}{2}$ miles).—Shelter, Name Board, Platelayer's Cottage, Native Barracks, Double Dead End Siding.

LINDLEY ROAD STATION (36 $\frac{3}{4}$ miles).—Station Building, semi-detached Staff Quarters, Goods Shed (50 x 25 ft.) ; Goods Platform, 120 ft. ; Cattle Pen, Permanent Way Inspector's House (stone), 2 Platelayers' Cottages, 2 Native Barracks (Maintenance), 1 Native Barracks (Traffic), Detached Quarters, Coal Stage, Ash Pit and Sidings.

KOMSPRUIT STOPPING PLACE (47 $\frac{1}{4}$ miles).—Shelter, Name Board, Platelayer's Cottage, Native Barracks.

LOVAT STATION (54 $\frac{1}{4}$ miles).—Station Building, semi-detached Quarters, Goods Shed, 50 ft. x 25 ft. ; Goods Platform, 80 ft. ; Cattle Pen, Loading Bank, 2 Platelayers' Houses, 2 Native Barracks (Maintenance), 1 Native Barracks (Traffic), Name Board and Sidings.

OOSTHUYSEN STOPPING PLACE (63 $\frac{1}{4}$ miles).—Shelter, Name Board, Platelayer's Cottage, Native Barracks.

WONDERKOP (70 $\frac{1}{2}$ miles).—Shelter, Name Board, Platelayer's Cottage, Native Barracks and Loop Siding.

COWIE STOPPING PLACE (77 $\frac{3}{4}$ miles).—Shelter, Name Board, 2 Platelayers' Cottages, 2 Native Barracks, Double Dead End Siding.

KROONSTAD JUNCTION (88 $\frac{1}{2}$ miles).—2 Name Boards, Platelayer's Cottage, Native Barracks and Loop Siding.

Telegraph.

87. This was erected by the C.S.A.R. with second-hand material supplied by that Administration.

88. The introduction by the C.S.A.R. of the Siemens & Halske Electrical Block and Lock System of Signalling with small disc signals at Kroonstad Junction came into operation on November 1st. By this arrangement the trains of the Bethlehem-Kroonstad Railway—which is treated as a Branch Line—are admitted to the Main Line of the C.S.A.R. on application by the Guards of the various trains to the Station Master at Kroonstad Station.

Expenditure.

89. The original detailed Estimate of £373,000, exclusive of Rolling Stock was reduced by the Government to £327,200.

90. The total expenditure to 31st December, 1906, was £353,775, exclusive of Rolling Stock.

Rolling Stock.

91. The question of Rolling Stock is being arranged with the Managements of the C.S.A.R. and N.G.R. Administrations, and a number of C.S.A.R. Engines and Trucks are being taken over.

Engineer-in-Chief's Office,
Pietermaritzburg, Natal,
14th February, 1907.

JNO. W. SHORES,
Engineer-in-Chief, N.G.R.

APPROPRIATION ACCOUNT FOR THE FINANCIAL YEAR ENDED 30TH JUNE, 1906.

VOTE E.

WORKS UNDER LOANS, RAILWAY CONSTRUCTION.

Account of the Sum Expended, compared with the Sum granted, in connection with Railway Construction in Natal, in the year ended 30th June, 1906, showing the Surplus or Deficit upon each Sub-Head of the Vote.

No. of Sub-Vote.	Service.	Grant.	Expenditure.	Expenditure compared with Grant.		Explanation of the Causes of Variation between Expenditure and Grant.
				Less than granted.	More than granted.	
1	Natal-Cape Railway ...	£ s. d. 135,940 0 0	£ s. d. 63,854 7 5	£ s. d. 72,085 12 7	£ s. d. ...	LOAN VOTE E, SUB-VOTES 1 AND 2. 1. This unexpended balance has been brought about by the fact that the Line has been temporarily stopped at Dronk Vlei pending the completion of negotiations with the Cape Government as to its extension to Riverside. 2. The bulk of this unexpended balance is due to the fact that no payments have yet been made to the Contractors for the Stuartstown Railway, and that the construction of the Howick Branch, which was provided for in the Estimates, has been held over for the present.
2	Branch Lines ...	300,000 0 0	160,587 9 0	139,412 11 0	...	
Original ...	£435,940 0 0 Total ...	£435,940 0 0	£224,441 16 5	£211,498 3 7	...	

Surplus to be surrendered £211,498 3s. 7d.

APPROPRIATION ACCOUNT FOR THE FINANCIAL YEAR ENDED 30TH JUNE, 1906.

VOTE 48.

RAILWAY SURVEYS.

Account of the Sum Expended, compared with the Sum Granted, in connection with Railway Surveys in Natal, in the Year ended 30th June, 1906, showing the Surplus or Deficit upon each Sub-Head of the Vote.

Service.	Grant.			Expenditure.			Expenditure compared with Grant.			Explanation of the Causes of Variation between Expenditure and Grant.
	£	s.	d.	£	s.	d.	Less than Granted.	More than Granted.		
Railway Surveys	...	...	...	£	s.	d.	£	s.	d.	VOTE 48, RAILWAY SURVEYS. The £5,000 inserted in the Estimates for Railway Surveys was not based upon detailed Estimates. It was merely a lump sum to cover the cost of what-ever Surveys might be put in hand during the year.
				5,000	0	0	2,396	18	5	
									...	
Original	£5,000	0	0	Total ...			£2,396 18 5			...
Supplementary										
				£5,000	0	0	£2,396	18	5	

Surplus to be surrendered, £2,396 18s. 5d.

APPENDIX C.]

LOCOMOTIVE, CARRIAGE, AND WAGON DEPARTMENTS.

REPORT OF THE LOCOMOTIVE SUPERINTENDENT FOR THE
YEAR ENDED 31ST DECEMBER, 1906.

THE GENERAL MANAGER OF RAILWAYS,—

I have the honour to submit my Report upon the Locomotive Department for the year ended 31st December, 1906.

MILEAGE.

1. **Engine Mileage.**—A considerably increased Engine Mileage has been run during the year 1906.

The total amounted to **6,007,472**, or, an increase of 252,567 over that for 1905.

The average Mileage per Engine was **14,199**, an increase of 447 over preceding year.

2. **Train Mileage.**—The total Train Miles run during the year 1906 was **4,628,953**, or, an increase of 145,795 over that for the year 1905. The increased Mileage was attributable principally to the opening of the Bethlehem-Kroonstad and Ennersdale-Los Kop Branch Lines, as well as additional Main Line Mileage.

In addition to Mileage above noted, **93,893** Train Miles have been worked on Van Reenen-Bethlehem Extension, which are not included in Train Mile Totals.

3. **Summary of Mileage.**—The following Summary of Engine and Train Mileage run during the years 1897 to 1906 inclusive, illustrates fluctuations in Mileage during that period :—

Year.	Average number of Engines.	Engine Miles.	Train Miles.	Average Train Miles per Engine.
1897	117	...	2,424,152	20,719
1898	125	...	2,762,429	22,099
1899	129	...	2,750,955	21,325
1900	149	...	3,119,409	20,936
1901	174	5,198,149	4,348,609	24,992
1902	228	5,480,981	4,450,557	19,519
1903	259	6,105,233	4,851,600	18,732
1904	296	5,426,659	4,292,028	14,500
1905	326	5,754,905	4,483,158	13,752
1906	326	6,007,472	4,628,953	14,199

4. **Engine Performance.**—A Comparative Statement (Annexure "A") of Mileage run by each Class of Engine in various Locomotive Districts during years 1905 and 1906 is submitted, from which some interesting figures may be taken, showing to what extent engines have been used upon various classes of trains during those periods.

5. **Branch Line Mileage.**—An additional Comparative Statement (Annexure "B") is also appended setting forth the Mileage performed upon Main and Branch Lines during years 1905 and 1906 under Locomotive Districts, which further illustrates upon what Sections of these Railways Mileage has been distributed.

EXPENDITURE.

6. It has again been found necessary to exercise the most rigid economy in expenditure in all sections of this Department during the past year, owing to continued financial depression in the Colony.

The total Expenditure upon Locomotives, Carriages, Wagons, and General Charges during 1906 has been further reduced to **£619,814 4s. 8d.**, or a saving of **£17,859 2s. 9d.** upon that of the previous year.

To further emphasize the effect of retrenchment in total expenditure during the past year, it will have been noted that **145,795** train miles have been run more than during 1905—in addition to the total saving of **£17,859** in expenditure—which, represented in money value, and calculated upon the basis of 1905 working, would have equalled **£20,739** or, an approximate total saving of **£38,598** over preceding year's figures.

7. Work done for other Departments, etc.—The following Comparative tabulated Statement illustrates the value of additional work done by this Department for Capital Account, Workshops, and other Departments, which has been charged out during the years 1905 and 1906.

Work.	1906.	1905.	Increase.	Decrease.
New Works	£ 37,289	£ 44,441	£ ...	£ 7,152
General Manager	552	671	...	119
Traffic	10,181	11,743	...	1,562
Chief Accountant	78	79	...	1
Engineer-in-Chief	5,688	4,450	1,238	...
Maintenance	459	513	...	54
Construction	2,699	8,218	...	5,519
General Stores... ..	10,306	12,445	...	2,139
Government Cold Storage	102	221	...	119
Other Government Departments & Outside Firms	5,493	3,068	2,425	...
C.S.A.R.	4,134	4,078	55	...
Van Reenen-Bethlehem	12,982	6,775	6,207	...
Totals	89,963	96,702	9,926	16,665

It will therefore be seen that the total spending power of this Department during the past year has been equal to £709,777.

8. Comparative Statement (Annexure "C") of Expenditure in this Department for the years 1902 to 1906 inclusive is appended, in which the fullest details are set forth under their respective headings, computed upon a mileage basis, from which the position of this Department may be ascertained at a glance.

9. Running Expenses.—The expenditure under this heading has been reduced to 7·29d. per train mile, or a decrease of 0·44d. over that of the preceding year.

10. Coal.—New Contracts have been entered into as from 1st January, 1906, with practically all the outputting Collieries in Natal, at prices slightly in advance of those ruling previously. It has not been considered advisable to continue the use of the lower grade Coals referred to in report for 1905.

The total quantity of Coal used during 1906 was 197,346 tons at a cost of 4·51d. per train mile, as against 6·04d. during 1905.

11. Repairs to Engines.—The total expenditure upon Repairs and Renewals of Engines during 1906 was £186,383 or, an increase of £11,599 over preceding year.

The increase is mainly attributable to the fact that a greater amount of Repair Work has been effected upon the "Hendrie" and "Reid" classes of Engines during the year, as well as a larger proportion of general repairs.

12. Repairs to Carriages.—An amount of £61,041 was expended during 1906 upon Repairs and Renewals of Carriages as against £63,130 in 1905, thus shewing a reduction of £2,089 upon last year's total, or a reduced average of £5 1s. 1d. per vehicle over that of last year.

13. Repairs to Wagons.—The Expenditure upon Repairs and Renewals of Wagons during the past year amounted to £57,014 or an increase of £4,114 over that of 1905, and an average increase of £1 2s. 5d. per vehicle.

The increased Expenditure is explained by the fact that a larger proportion of our Wagon Stock has received attention during 1906 than hitherto.

14. Total Expenditure.—The following is a Summary of Total Expenditure in this Department during the years 1897 to 1906 inclusive, viz. :—

Year.	Supervision and Office Expenses	Locomotive.	Carriage.	Wagon.	Examination of Vehicles.	Total.
1897	£ 7,005	£ 152,577	£ 21,705	£ 48,046	£ ...	£ 229,333
1898	7,295	154,766	32,933	40,740	...	235,734
1899	6,881	168,388	34,171	46,302	...	255,742
1900	7,519	370,320	29,086	46,011	...	452,936
1901	13,402	399,798	39,657	57,789	...	510,646
1902	24,854	537,841	36,914	92,329	...	691,938
1903	33,258	602,260	55,835	120,645	...	811,998
1904	37,140	541,298	79,521	102,666	...	760,625
1905	21,238	465,214	63,130	52,900	35,191	637,673
1906	19,461	449,118	61,041	57,014	33,180	619,814
Total ...	178,053	3,841,580	453,993	664,442	68,371	5,206,439

15. **Summary of Expenditure.**—The Total Working Expenditure, calculated upon a Mileage basis, and the percentage of Working Expenditure to Receipts during the same period has been as follows, viz. :—

Year.	Supervision.	Locomotive.	Carriage.	Wagon.	Examination of Vehicles.	Total.	Percentage of Working Expenditure to Receipts.
	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	
1897 ...	0·69	15·10	2·15	4·76	...	22·70	21·81
1898 ...	0·63	13·45	2·86	3·54	...	20·48	23·90
1899 ...	0·60	14·69	2·98	4·04	...	22·31	27·20
1900 ...	0·58	28·49	2·24	3·54	...	34·85	36·46
1901 ...	0·74	22·06	2·19	3·19	...	28·18	30·94
1902 ...	1·34	29·00	1·99	4·98	...	37·31	33·82
1903 ...	1·65	29·79	2·76	5·97	...	40·17	31·70
1904 ...	2·07	30·27	4·45	5·74	...	42·53	39·33
1905 ...	1·14	24·91	3·38	2·83	1·88	34·14	31·34
1906 ...	1·01	23·29	3·16	2·96	1·72	32·14	33·74

LOCOMOTIVES.

16. **Locomotive Stock.**—Particulars as to position and condition of Engine Power at 31st December, 1906, will be found tabulated in Annexure "D." Of the total of 333 engines, 158 were in first class order, 63 in second class order, 35 in third class order, whilst 45 were under repairs, and 32 waiting repairs.

17. **Locomotives Erected and Repaired.**—From information contained in Annexure "E. 1," it will be seen that considerable progress has been made during 1906 in Repairs of Engines. During last year 232 Engines passed through Durban workshops, as compared with 190 in the year 1905.

18. **Engine Failures.**—During the past year 246 Engine failures have been recorded, 205 of which were due to ordinary defects, and 41 were attributable to carelessness on the part of Staff. The following Statement tabulates details of failures :—

Class of Engine.	Passenger.	Mixed.	Goods.	Total.
Small ...	4	...	3	7
Dubs ...	1	12	14	27
Improved Dubs ...	5	8	7	20
Reid ...	3	14	127	144
Tender ...	15	11	22	48
Total ...	28	45	173	246

In view of the fact that each failure represented an average of 18,816 train miles, the result may be regarded as satisfactory.

19. **Boiler Shop Repairs.**—Appended will be found particulars of Repair and Renewal work upon Boilers and Engines of the various classes as follows :—

Class.	Boilers Repaired.						Repairs to Frames, Cabs, Bunkers, Smoke Boxes & Tanks.			Fire Boxes.				Sets of Tubes.			
	Out of Frames.			In Frames.			Heavy.	Med.	Light.	Tube Plate renewed.	New Fire-box fitted.	Full sides fitted.	Half sides fitted.	New.	Braided.	Smoke Boxes. Tube-plate renewed.	New Boilers built.
	Heavy.	Med.	Light.	Heavy.	Med.	Light.											
Hendrie "A" ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hendrie "B" ...	1	...	2	...	7	37	...	17	12	1	...	...	...	3	...	...	...
Reid ...	34	19	1	...	2	53	8	92	139	17½	1	...	52	22	6	...	...
Dubs "A" ...	16	1	...	...	13	31	18	46	83	4	5	12	...	19	4	1	...
Dubs "B" ...	...	...	...	...	1	12	...	2	17	...	...	...	...	...	...	...	...
Neilson-Reid ...	...	...	...	...	9	7	1	4	13	...	1	...	...	2	3	...	...
Kitson-Stephenson	2	2	...	...	10	3	4	13	29	2	...	2	...	5	1	...	2
Smalls ...	1	...	...	...	1	2	1	7	7	...	...	...	...	1	...	...	1
C.S.A.R. ...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...
N.G.R. ...	...	1	...	...	...	...	...	...	...	1	...	...	...	2	...	...	...
Totals ...	54	23	3	...	43	146	32	182	301	25½	7	14	52	54	14	1	3

In addition to above, 7 of the Reid and 3 of the Dubs "A" type of boilers have been repaired but not replaced in frames. The total number of boilers on hand and available for use was 8 Reids, 3 Dubs "A," 9 Dubs, 4 Kitson-Stephenson, and 1 N.G.R. type, making 25 in all. Of the 9 Dubs Boilers referred to, 4 are at present on loan to the Harbour Department.

20. **Tender Engines.**—The working of Tender Engines during the past year has given satisfaction. They are now very extensively used upon Passenger Train Service.

CARRIAGES.

21. **Carriage Stock.**—A Summary of Coaching Stock on hand as at 31st December, 1906, will be found in accompanying Comparative Statement (Annexure "F").

During the year the following Carriage Stock has been placed on Traffic, viz. :—

- 5—Eight-wheeled 1st and 2nd Class lavatory corridor coaches.
- 4—Eight-wheeled 2nd Class lavatory corridor coaches.
- 1—Eight-wheeled 1st Class (non-lavatory).
- 1—Eight-wheeled 1st and 2nd Class carriage (non-lavatory).
- 1—Eight-wheeled 2nd Class carriage.
- 2—Eight-wheeled 2nd Class carriage with Guard's compartment.

Total, 14

These Carriages have been erected as a debit against Loan Vote.

During the same period 5 Cabooses have been returned from Construction Department, 2 Passenger Brake Vans were taken over from C.S.A.R. in connection with Bethlehem-Kroonstad Line, 2 Carriages were converted, 4 Brake Vans were broken up, and 5 Cabooses were sold, whilst 33 Carriages were under and awaiting repairs at 31st December, 1906.

22. **Carriages Erected and Repaired.**—A Comparative Statement (Annexure "E 2") is submitted, shewing particulars of Carriages erected and repaired during the years 1905 and 1906, from which it will be observed that close attention has been given to this stock during the past year.

WAGONS.

23. **Wagon Stock.**—The position of Wagon Stock as at 31st December, 1906, is summarised in Comparative Statement form (Annexure "D,") from which it will be seen that 68 wagons have been returned from Construction Department, 167 wagons have been erected, 3 conversions have been made, whilst 33 wagons have been broken up.

During the past year the following wagon stock has been placed on traffic, viz. :—

- 12—Eight-wheeled cattle trucks.
- 7—Eight-wheeled insulated vans.
- 2—Eight-wheeled dairy vans.

Total, 21

This stock has been erected and charged against Loans Vote.

24. **Wagons and Vans Erected and Repaired.**—Annexure "E 3" shews Comparative Summary of Wagons and Vans erected and repaired during the years 1905 and 1906, from which it will be observed that a larger number of wagons have received attention during 1906 than hitherto.

WORKSHOPS.

25. **Smiths' Shop.**—The additional accommodation reported upon last year has not yet been supplied, with the result that the Department has either to order Forgings from England, or buy locally, the latter of which are neither so well made nor so economical.

26. **Foundry.**—The extension to the Iron Foundry has been completed, and the increase of output since the completion has been 48 per cent.

27. **Carriage and Wagon Yard.**—We are still very short of accommodation for Wagon Repairs, and to get over the difficulty in the meantime, with the minimum expense, the wooden building known as the "temple" is now being removed, when additional sidings will be laid and the present sidings somewhat re-arranged, so as to accommodate probably from 30 to 40 wagons more.

28. **Hot Water Boilers.**—There have been erected during the year, for the use of the men, boilers for heating water for cooking purposes. This overcomes the objectionable practice of the men boiling water on wood fires all over the yard, which was a source of great danger.

DISTRICT STATIONS.

29. **GREYVILLE: Engine Shed Accommodation.**—The engine shed accommodation at Greyville is very limited and totally inadequate for requirements.

Coaling Facilities.—The recent addition to the coal stage has greatly facilitated the coaling and despatch of tender engines.

30. **PIETERMARITZBURG: Shed Accommodation.**—The shed accommodation at Pietermaritzburg is in most urgent need of duplication. Nearly one half of the locomotives stationed at this Depot remain unsheltered, and subject to all weather conditions, which has naturally a most detrimental effect upon the stock, and is not conducive to economical results.

Yard Accommodation.—The accommodation in yard also requires urgent extension, being inadequate for daily requirements.

31. LADYSMITH: Shed Accommodation.—The question of shed accommodation at Ladysmith is felt more acutely each succeeding year. The present sheds and yards are practically the same now as 20 years ago, despite the enormous increase in sizes and numbers of engines, as well as developments in traffic.

Although a scheme has been discussed for erection of a round-house engine shed to accommodate 78 engines, and remodelling the yard, nothing tangible has resulted.

I trust the disabilities experienced in this connection at Ladysmith may soon be removed.

Workshops.—Considerable difficulty is experienced through lack of accommodation in workshops, the present building being inadequate for requirements.

Coaling Facilities.—A great amount of duplication in work occurs daily through the primitive coaling facilities available at this station. The stages are unsuitable for rapid coaling of engines, and no covering has been supplied to protect the staff from climatic changes experienced.

Ladysmith: Water Supply.—Difficulty has been experienced during the past year with the Ladysmith Corporation water supply. The Department has at most times been unable to obtain a supply of water from the high pressure main sufficient for the purpose of cleaning out boilers, and in consequence we have been compelled to work our own pump night and day to avoid delays to traffic.

A new agreement has been signed for the supply by the Corporation of a minimum of 150,000 gallons of water per day, of which at least 75,000 gallons per day shall be available from the high pressure service reservoir. A direct pipe line is to be put down by the Corporation, which should ensure the Department obtaining a certain high pressure supply of water.

Ladysmith: Water Filtering Plant.—It is anticipated that a "Kennicott" Water Softening and Filtering Plant will be shortly installed at Sundays River, to deal with water in the upper district, which, during certain seasons, gives much trouble.

Wallsend Water Supply.—I would urge the necessity of proceeding with this scheme immediately, in order to facilitate the working of engines on the Biggarsberg, and at same time materially reduce the cost of carrying water from Dundee.

32. CHARLESTOWN: Shed Accommodation.—The accommodation at Charlestown is insufficient for the number of engines stationed at this Depot. Further shedding accommodation is urgently required.

33. General Remarks.—It will be seen from the foregoing remarks concerning yard and shed accommodation at District Centres, that extensions are most imperatively and urgently required.

I regret that although this question has been raised in previous Annual Reports, as well as periodically through correspondence, relief has not yet been afforded.

COALING FACILITIES.

34. Mooi River.—More modern coaling arrangements are required at Mooi River. Over 200 tons of coal are dealt with daily by the bagging process, the cost of which might be considerably reduced by the introduction of better facilities.

35. Hatting Spruit and Newcastle.—The coal stages at these stations are too low, thus entailing extra handling of coal and consequent delays. This work could be more expeditiously and economically overtaken with better facilities.

ELECTRICAL DEPARTMENT.

The following report has been submitted by Mr. F. W. MILLS, M.I.E.E., Chief Electrical Engineer, in connection with the working of this Section of the Department, viz :—

I have the honour to submit herewith my report on the working of the various Electrical Power Stations during the year 1906.

36. Charlestown.—The Plant at this station has worked well and given satisfaction. In December Mr. G. STOBIE, late Electrical Engineer of the Harbour Department, was appointed District Electrical Engineer at this station.

The output for 1906 was 84,249 B.T. units at an average cost of 3·283d. per unit as compared with 67,150 units at a cost of 5·667d. during 1905.

37. Newcastle.—The electric current consumed at this station for lighting the yard by means of arc lamps is supplied by the local Electrical Supply Company, while the carboning, lamp maintenance, etc., is carried out by this Department.

38. Dundee.—This station also obtains current from a local supply company which has given every satisfaction.

39. Ladysmith.—The Plant at this station has run well and given no unusual trouble. In view of the success with dross coal at other stations it was also introduced here with the effect, as will be noticed in the comparative statements, of substantially reducing the generating costs.

The station buildings have been completely rewired.

The total output was 136,804 B.T. units at an average cost of 2·729d. per unit as compared with 136,285 units, cost 3·22d. for 1905. The light and power cables in the yard are giving considerable trouble and it will be necessary to put down new ones early in 1907.

40. Mooi River.—The Plant at this station has worked well with the exception of a few slight failures during the early part of the year. Although the European staff has been considerably reduced the lighting and pumping has been carried out efficiently.

The total output was **38,517 B.T. units** at an average cost of **3·673d.** per unit as compared with 39,109 at a cost of 6·089d. for 1905.

41. **Pietermaritzburg.**—The Plant at this station has run throughout the year without a breakdown of any kind which is very creditable for a high tension power station. Some additions to the load were made during the year which are of advantage in assisting to keep down the works costs. The usual supervision to all Government installations was accorded and the wiring of the new Government Post Office supervised.

The total number of units generated was **319,436** at an average cost of **1·643d.** per unit as compared with 289,177 in 1905 costing 1·988d. per unit.

42. **Inchanga.**—This Plant has worked well throughout the year. The plant is in good condition having lately undergone a thorough overhaul.

The total output was **35,999 units** at an average cost of **2·135d.** per unit as compared with 37,124 units costing 6·488d. for 1905. The difference in works costs is largely due to the fact that in 1905 additions made to the plant were charged to working expenses. There have been no additions during 1906.

43. **Hill Crest.**—The Plant at this station has run well throughout the year with the exception of a breakdown of the large motor in April. The plant requires a thorough overhaul and a duplicate engine is now very desirable.

The number of units generated was **75,909 B.T. units** at an average cost of **1·865d.** per unit as compared with 68,612 units at a cost of 2·231d. per unit for the previous year.

44. **Greyville.**—The lighting and power supply at this station has been maintained successfully and without failure throughout the year.

45. **Durban.**—The Power Station Plant has run constantly during the year and has successfully met all demands upon it.

The current generation has shown a heavy increase over the previous year's working of nearly a quarter of a million B.T. units. The actual figures are :—

Total current generated for year 1906	=	1,258,341 B.T. units.
" " " " 1905	=	1,036,712 "

Increase	=	221,629 "
----------	---	-----------

The average monthly output for the year under review has been **104,861 B.T.U.** as against 86,392 B.T.U. in 1905.

The average work's costs per unit distributed are **1·075d.** and the total costs of the year's working **£5,177 9s. 5d.** as compared with a work's cost per unit of 1·163d. and a total expenditure of £4,818 15s. 1d. for 1905.

The whole of the generating plant has been in use throughout the year, and but little opportunity has been available for more than actually necessary repairs. It is therefore satisfactory to record only one general interruption of supply and that due to a steam pipe failure early in the morning.

A 105 Kilowatt steam generator was put down temporarily, in October, to assist in meeting the heavy demands.

Elandslaagte dress coal has been used throughout the year with the best results in all respects.

The coal and ash hoppers and elevator have been roofed in with great advantage and I give below a brief list, "a," of work carried out in the Power Station, and "b," of construction work in connection with the unification of the Railway and Harbour electricity supplies.

a. Overhead galleries and stairways in engine and boiler rooms.

Pneumatic service brought into use.

Superheater rebuilt.

Vacuum oil discharge put in.

New 8 inch steam main.

Temporary generator set installed.

Grouping of smaller feeders.

Roofing in coal handling plant.

b. Feed pump removed and put on new site.

New feed tank and connections erected.

Erection of high tension switchboard gallery in engine room.

Turbo-alternator foundations in hand.

The foregoing lists do not take into account the general maintenance and overhauling work which has been carried out as time permitted.

46. **Motors.**—The horse power of new motors installed during the year amounts to **151**, making a total of installed horse power of 2,073½. There were 19 breakdowns, none of which could be considered of a serious nature. The new electrical workshops were completed and occupied in August. Construction work has been greatly handicapped, partly by the ravages of malaria and also through the military operations during the native rebellion.

47. **Lighting.**—The usual maintenance has been carried out, while the additions include the new General Stores, alterations and additions to the Head Office lights, overhauling the Point Goods Sheds, and installation of four "flame" arc lamps on Durban Platform.

GENERAL REMARKS.

48. **Train Lighting: Van System.**—The train lighting work increases steadily every year. The total number of trains lit by the van system was 11,891, an increase of 701 over the previous year. The failures numbered nine. The average cost per train trip was 7s. 2d., this being a saving per train trip over the previous year of 3s. 9d.

49. **Stones System.**—The coaches now lit by this system number 73, being an increase of 33 per cent. over the previous year. The number of trips has increased from 8,999 in 1905, to 12,794 in 1906. The total complete failures were 9 only, or 7 less than the previous year with a much larger number of vehicles in use.

I regret to say that this has not been accomplished with a corresponding reduction in the costs of working. The cost per trip has gone up to 4s. as compared with 3s. 1d. for 1905, and 4s. 10½d. in 1904. This is explained by the fact that :—

a. In the earlier part of the year a closer sub-division of the working expenses of the Stones and van system was made to the disadvantage of the former.

b. A large number of vehicles were fitted with new cclls and otherwise overhauled, many of which would have been done in 1905, but for the non-arrival of the material.

- c. The average trip is now much longer than any previous year, on account of the corridor train running daily instead of bi-weekly as hitherto.
- d. The disorganisation of the staff due to Militia being called out. This fell very heavily on the train lighting staff.
- e. The rapid growth of the electrically equipped stock has caused congestion at the Depot, where this class of work is carried out. The result of which is that often it is impossible to overhaul the vehicles in the time available before they are wanted again, and also men have to wait on the shunters, as the cleaning, oiling, and adjusting of the machines is done in a corner of the yard where shunting is constantly being carried on. The men have to crawl under the vehicles and lie on their backs in order to do their work. This should be remedied as soon as possible by the provision of a proper shed with pit and locked sidings.

The following tables shew the growth of electric train lighting :—

		1903-4.	1905.	1906.
Coaches wired for Van System	...	347	373	380
" " both Systems	...	28	29	32
" " S.P. only ...	...	14	29	42
Total	...	389	431	451

Stone's Patent Vehicles of all Descriptions.

		1904.	1905.	1906.
16 volt Stone's Patent	...	28	28	28
24 " " "	...	16	28	45
Total	...	44	56	73
Van System.				
Vans fitted with Accumulators	...	39	44	45
Brake Compos. fitted with Accumulators	...	4	5	5
Total	...	43	49	50

50. Statements.—The following statements are appended hereto :—

- Annexure I. General Statement of Expenditure for 1906.
 Annexure J. Statistical Statement of Expenditure.
 Annexure K. Comparative Statement of Generating Costs.
 Annexure L. Comparative Statement of Train Lighting Costs.

F. W. MILLS,
 Chief Electrical Engineer.

GENERAL OBSERVATIONS.

51. **Maintenance of Train Service.**—The train service generally has been maintained in an efficient manner throughout the year, more especially the Main Line Mail and Passenger Service, for, with the exception of a few delays brought about by occurrences impossible to foresee, correct time has been kept.

52. **Engine Power available.**—The Traffic Department have at all times been supplied with what engine power they required, and it has not been necessary to cancel trains through shortness of engines. Trade depression generally has, no doubt, played no small part on this phase of the question, as the number of trains run is consequently less.

53. **Axle Boxes.**—The axle boxes of the high capacity vehicles have been giving the average amount of trouble, and while it is impossible to completely eradicate the evil, it is hoped an improvement will be effected as the new method of packing boxes is gradually introduced.

Delays to passenger trains as a result of hot boxes is now of rare occurrence.

54. **Banking Engines.**—The working of trains under the Banking System is giving good results, and is being introduced where portions of the line afford this mode of working being carried out economically.

55. **Dynamometer Car.**—Several tests have been made with a Dynamometer Car in the hope that accurate readings of the draw bar pull could be taken, but so far results have not been very encouraging, as, owing to the pulsations of the engines, which are brought about by the heavy banks, and the small diameter of driving wheels, it has been quite impossible to obtain anything like a readable diagram. I am getting all the available information I can on the subject, and hope to be able to furnish the van with a better instrument than the one it is presently equipped with.

56. **Waste Oils.**—After certain satisfactory experiments were made to chemically treat recovered waste oils, sanction was given the Department to prepare a permanent plant, and this is accordingly being done. It is expected that the apparatus will be complete and in operation in the course of a few weeks.

It is estimated that 3,000 gallons of recovered oil will be treated annually, of which 2,500 gallons of purified oil will be obtained.

Comparing the total yearly expense in dealing with above quantity of purified oil, and the cost of the mixture of oil and paraffin in use by the Department, a considerable saving annually is expected.

57. Estcourt-Weenen Railway.—The whole of the rolling stock for the Estcourt-Weenen 2ft. gauge railway has been received and erected in the Durban workshops. The engines and wagons are at present in use for ballasting purposes and carrying traffic to Halfway House.

Wooden frames have been constructed and fitted to the carriage bogies, but, as wagons are also being used for ballasting, additional bogies have been ordered and upon arrival will take the place of carriage bogies at present under wagons, the carriage bogies then being assigned to their original stock.

58. Rolling Stock for Bethlehem-Kroonstad Line.—We have received from the Central South African Railways the following Rolling Stock, handed over in connection with the working of the Bethlehem-Kroonstad Railway, viz. :—

- 40 Steel Bogie Wagons.
- 60 Four-wheeled low-sided Shorts.
- 20 Four-wheeled low sided Longs.
- 10 Cattle Trucks.
- 2 Passenger Brake Vans.

Three of the Central South African Railway 7th class type of Tender Engines were also handed over, and have since been working on the Bethlehem-Kroonstad Line in conjunction with the five Dubs engines fitted with cylindrical tanks, the latter method being necessary until the water supplies on this line are completed.

As per arrangement this Department will set aside the carriage stock (four 1st and 2nd compos. and two 3rd class carriages) to be handed over in connection with this line.

59. Engine Weighbridge, Durban.—The engine weighbridge which has been in the Department's possession for about four years, is still lying idle awaiting erection. It is hoped that its erection will be sanctioned during the forthcoming financial year.

60. Turnstiles for Latrines, Durban Yard.—I trust that the erection of turnstiles for latrines will be sanctioned during the ensuing year.

61. Fencing Durban Works.—Although the fencing of Durban Works has been under consideration for some years, nothing tangible has resulted.

Thefts unfortunately recur, owing to works not being sufficiently protected, in addition to which another danger is experienced in that opportunity is afforded for incendiarism.

62. New Machinery.—The importation and erection of the following machines and tools authorised during last financial year should greatly benefit the Department, and be the means of increasing the output with a corresponding reduction of manual labour :—

- (1) Universal Horizontal Milling Machine with Motor.
- (2) Vertical Milling Machine with Motor.
- (3) One Punching Machine.
- (4) One Automatic Copper Stay Machine with Motor.
- (5) Three-headed Drilling Machine with Motor.
- (6) One Roots Blower.
- (7) One Tyre and Wheel Drilling Machine.
- (8) Cutter Grinding Machine with Motor.
- (9) One Treadle Driven Guillotine Squaring Machine.
- (10) One Treadle or Belt driven Engraving Machine.
- (11) One 5-ton Hydraulic Crane.
- (12) One 3-ton Crane.

63. Central Store, Durban.—I would again urge the necessity of erection of a Central Locomotive Store in Durban workshops to deal with necessary stores required for renewal and maintenance work in this Department.

64. Improvements to Estcourt Station Yard.—The scheme for the improvement of Estcourt Station yard by providing new engine shed, pits, siding, coal stage, and turntable, unfortunately could not be entertained, although I consider proper accommodation and protection for the engines is necessary, and that in the interest of economy such should be provided.

65. Staff.—The following is a summary of the staff employed in the Locomotive Department as at 31st December, 1906, viz. :—

Staff.	Durban.	Greyville.	Maritzburg.	Ladysmith.	Charlestown.	Total.
Salaried ...	110	8	11	12	3	144
Wages ...	1,409	244	263	272	63	2,251
Indians ...	300	149	63	77	30	619
Natives ...	484	51	128	53	56	772
Total ...	2,303	452	465	414	152	3,786

It is with regret that I have to record the deaths of Inspector W. BIRD, Foreman Coach-maker G. LEVERETT, and Fuel Storeman A. ELLIOTT, during the past year, all of whom were old and valued servants of the Department.

I have again pleasure in placing on record my appreciation and thanks to the staff for their loyal support in the administration and working of this department during the year just ended.

66. **C.S.A.R. Corridor Stock.**—During the past year this Department has undertaken to build:

4	Dining Corridor Cars.
8	First class " "
12	Second " " "

for the C.S.A.R. Administration, for use on through train service.

I am pleased to say that the work is well in hand. The bodies of 4 dining cars have been erected, also the frames for 4 second class coaches, and all superstructure material prepared for the remaining second class carriages.

Material is now coming to hand for the underframes and bogies of this stock, and the work will be expedited in order to comply with terms of agreement.

67. **Retrenchment.**—In consequence of continued depression in the Colony it has been found necessary to exercise rigid economy in all branches of work during the past two years.

It will not be possible to further reduce expenditure to any appreciable extent, in view of increased mileage, without either (a) impairing the efficiency of stock, (b) reducing our works programme, or (c) affecting the employment of the staff in the service.

68. **Condition of Stock.**—Improvement continues to be made in the condition of machinery and stock, despite the fact that each year adds to its age, and increases the maintenance work and expenditure accordingly.

Considerable lee-way has yet to be made in bringing stock to a thorough state of efficiency and repair.

69. **Certificate.**—I hereby certify that locomotives, carriages, wagons, brake vans, stationary and pumping boilers, machinery, tools, travelling cranes, etc., have been maintained in as good order and repair as possible under the existing financial position of the Colony.

70. **Statements.**—The following Statements accompany this Report, viz. :—

LOCOMOTIVE.

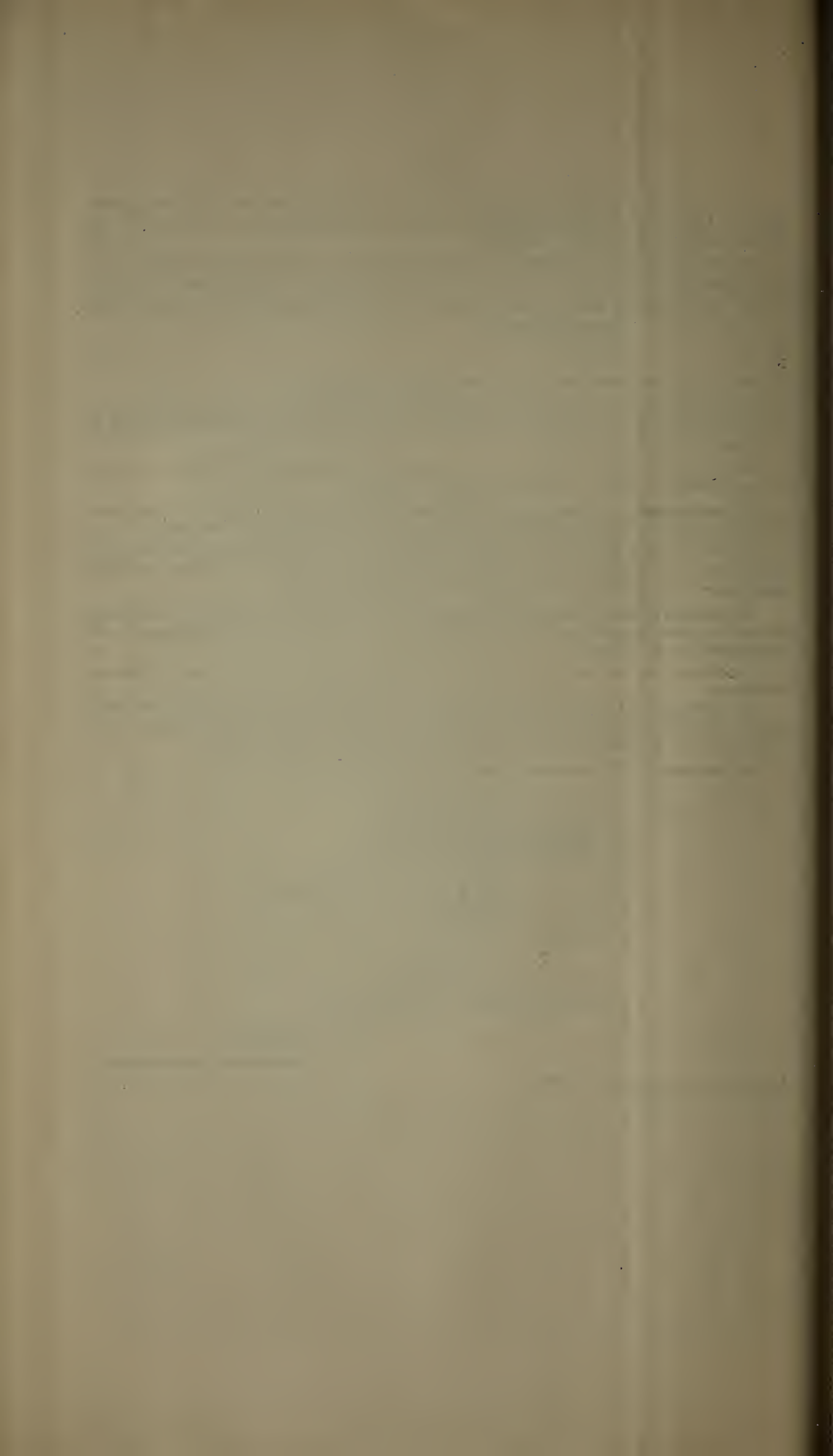
- Annexure "A"—Comparative Summaries of Mileage.
- " "B"—Main Line and Branch Line Mileage.
- " "C"—Comparative Statement of Expenditure.
- " "D"—Statement of Engine Power.
- " "E" 1—Statement of Engines Erected and Repaired.
- " "E" 2—" " Carriages " " "
- " "E" 3—" " Wagons and Vans Erected and Repaired.
- " "F"—Summary of Rolling Stock.
- " "G"—Particulars of Coaching and Van Stock.
- " "H"—Particulars of Wagon Stock.

ELECTRICAL.

- Annexure "I"—General Statement of Expenditure.
- " "J"—Statistical Statement of Expenditure.
- " "K"—Comparative Statement of Generating Costs.
- " "L"—" " Train Lighting Costs.

D. A. HENDRIE,
Locomotive Superintendent.

Locomotive Superintendent's Office,
Durban.



ANNEXURE "A"

CLASS OF ENGINE.	
Hendrie A	{ 1906. 1905.
Hendrie B	{ 1906. 1905.
Reid	{ 1906. 1905.
Dubs A	{ 1906. 1905.
Dubs B	{ 1906. 1905.
Neilson R	{ 1906. 1905.
Kitson S	{ 1906. 1905.
Small	{ 1906. 1905.
N & Co. Tender	{ 1906. 1905.
TOTALS	{ 1906. 1905.



COMPARATIVE SUMMARIES OF MILEAGE IN LOCOMOTIVE DISTRICTS AND PER CLASS OF ENGINE DURING THE YEARS 1905 AND 1906.

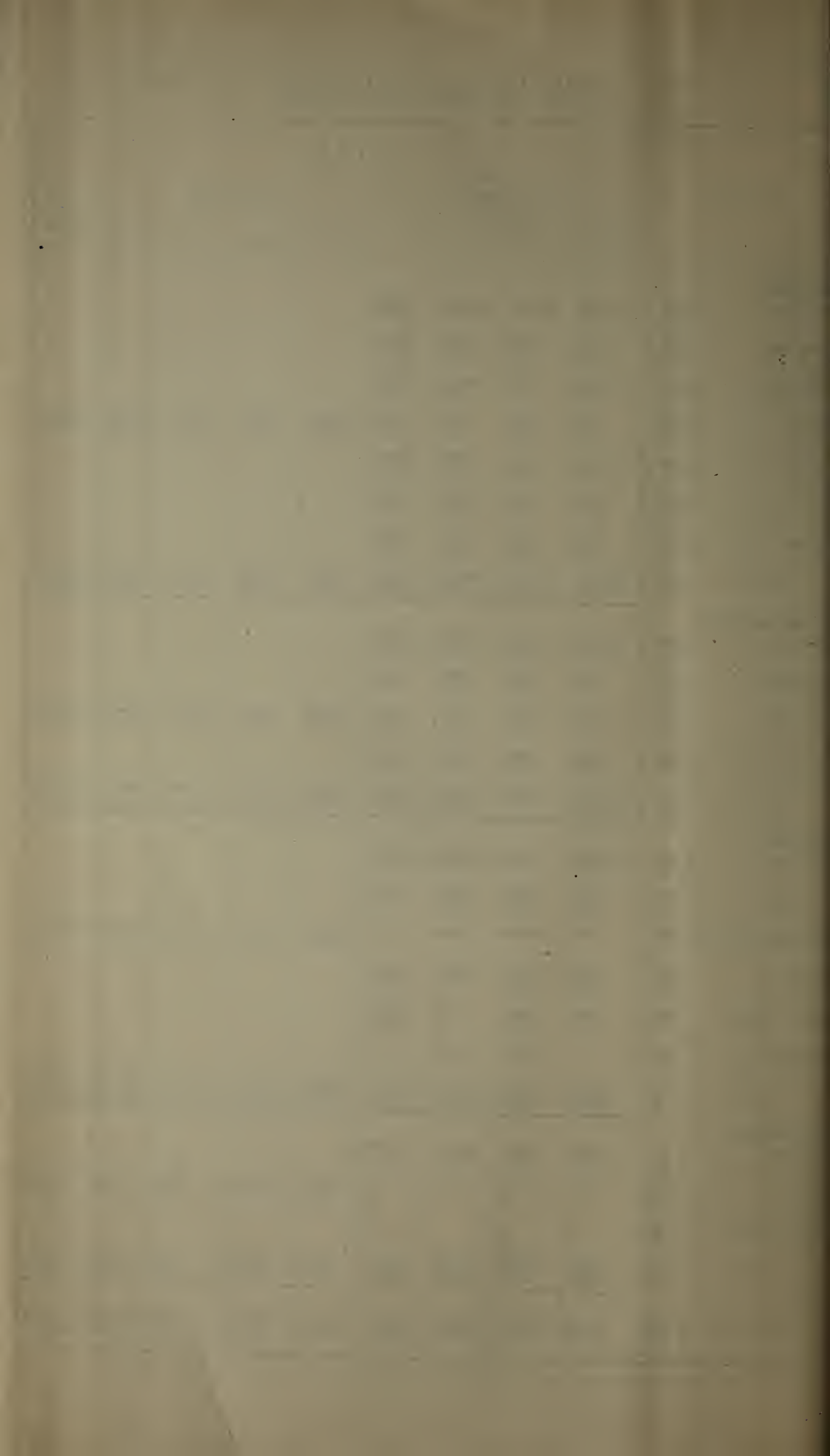
CLASS OF ENGINE.	GREYVILLE.						PIETERMARITZBURG.						LADYSMITH.						CHARLESTOWN.						TOTAL.						
	TRAIN MILES.				Shunting, Ballast, Constr., &c.	Total Engine Miles.	TRAIN MILES.				Shunting, Ballast, Constr., &c.	Total Engine Miles.	TRAIN MILES.				Shunting, Ballast, Constr., &c.	Total Engine Miles.	TRAIN MILES.				Shunting, Ballast, Constr., &c.	Total Engine Miles.							
	Pass.	Mixed.	Goods.	Total.			Pass.	Mixed.	Goods.	Total.			Pass.	Mixed.	Goods.	Total.			Pass.	Mixed.	Goods.	Total.			Pass.	Mixed.	Goods.	Total.			
Hendrie A { 1906...																		77,635	3,008	130	80,773	53	80,826	77,635	3,008	130	80,773	53	80,826		
{ 1905...					50	50												51,470	10,130	1,658	63,258	601	63,859	51,470	10,130	1,658	63,258	651	63,909		
Hendrie B { 1906...	69,995	141,763	169,286	381,044	11,993	393,037	118,543	121,645	286,731	526,919	15,714	542,633	70,588	37,922	164,036	272,546	12,104	284,650	12,974	12,772	28,762	54,508	3,023	57,531	272,100	314,102	648,815	1,235,017	42,834	1,277,851	
{ 1905...	16,804	46,450	211,098	274,352	14,796	289,148	8,732	8,988	330,854	348,574	20,241	368,815	3,812	3,500	124,561	131,873	10,948	142,821	621	1,531	20,466	22,618	1,511	24,129	29,969	60,448	687,000	777,417	47,496	824,913	
Reid { 1906...	38,672	57,343	264,529	360,544	35,076	395,620	9,441	45,616	462,938	517,995	44,614	562,609	12,843	83,498	708,756	805,097	64,152	869,249	20,889	36,851	148,588	206,328	15,036	221,364	81,845	223,308	1,534,811	1,889,964	158,878	2,048,842	
{ 1905...	114,000	80,021	232,752	426,773	37,613	464,386	109,847	77,536	399,543	586,926	44,143	631,069	63,843	51,755	601,175	836,773	54,027	890,800	16,952	21,046	184,566	222,564	20,319	242,883	334,642	230,379	1,508,015	2,073,036	156,102	2,229,138	
Dubs A { 1906...	107,570	131,539	98,796	337,905	205,009	542,914	21,105	159,232	32,829	213,166	131,836	345,002	9,813	100,196	114,508	224,517	203,559	428,076	27	2,335	24,950	27,312	64,185	91,497	138,515	393,302	271,083	802,900	604,589	1,407,489	
{ 1905...	134,062	105,442	81,094	320,598	192,131	512,729	30,251	116,538	43,478	190,267	142,340	332,607	20,791	85,287	134,041	240,110	217,785	457,004	548	3,755	37,397	41,700	75,717	117,417	185,652	311,022	296,010	792,684	627,973	1,420,657	
Dubs B { 1906...	1,225	3,416	14,265	18,906	11,346	30,252	10,173	33,172	56,481	99,826	24,936	124,762	29,606	69,982	113,508	213,096	52,678	265,774	3,406	11,373	4,794	19,573	11,883	31,456	44,410	117,943	189,048	351,401	100,843	452,244	
{ 1905...	22,460	24,589	11,641	58,690	4,371	63,061	69,364	63,794	45,031	178,189	6,649	184,838	61,803	55,826	64,654	182,283	9,388	191,671	37,021	18,841	20,193	76,055	4,928	80,983	190,648	163,050	141,519	495,217	25,336	520,553	
Neilson R { 1906...	82,485	71,194	30,243	183,922	35,134	219,056																			82,485	71,194	30,243	183,922	35,134	219,056	
{ 1905...	106,005	30,071	27,405	163,481	25,646	189,127																			106,005	30,071	27,405	163,481	25,646	189,127	
Kitson S { 1906...	22,198	8,256	19,220	49,674	265,415	315,089	10,295	12,993	9,654	32,942	3,107	36,049			272	272	987	1,259							32,493	21,249	29,146	82,888	269,509	352,397	
{ 1905...	29,877	19,231	31,229	80,337	237,006	317,343	12,278	10,300	13,780	36,358	4,347	40,705			542	542	998	1,540							42,155	29,531	45,551	117,237	242,351	359,588	
Small { 1906...					69,180	69,180									255	255	968	1,223										255	255	70,148	70,403
{ 1905...	76	4	748	828	101,314	102,142																			76	4	748	828	101,314	102,142	
N & Co. Tender { 1906...													273	906	654	1,833	2,638	4,471								273	906	654	1,833	2,638	4,471
{ 1905...																															
TOTALS { 1906...	322,145	413,511	596,339	1,331,995	633,153	1,965,148	169,557	372,658	848,633	1,390,848	220,207	1,611,055	123,123	292,504	1,101,989	1,517,616	337,086	1,854,702	114,931	66,339	207,224	388,494	94,180	482,674	729,756	1,145,012	2,754,185	4,628,953	1,284,626	5,913,579	
{ 1905...	423,284	305,808	595,967	1,325,059	612,927	1,937,986	230,472	277,156	832,686	1,340,314	217,720	1,558,034	180,249	196,368	1,014,073	1,301,590	293,146	1,684,736	106,612	55,303	264,280	426,195	103,076	529,271	940,617	834,635	2,707,906	4,483,158	1,226,869	5,710,027	

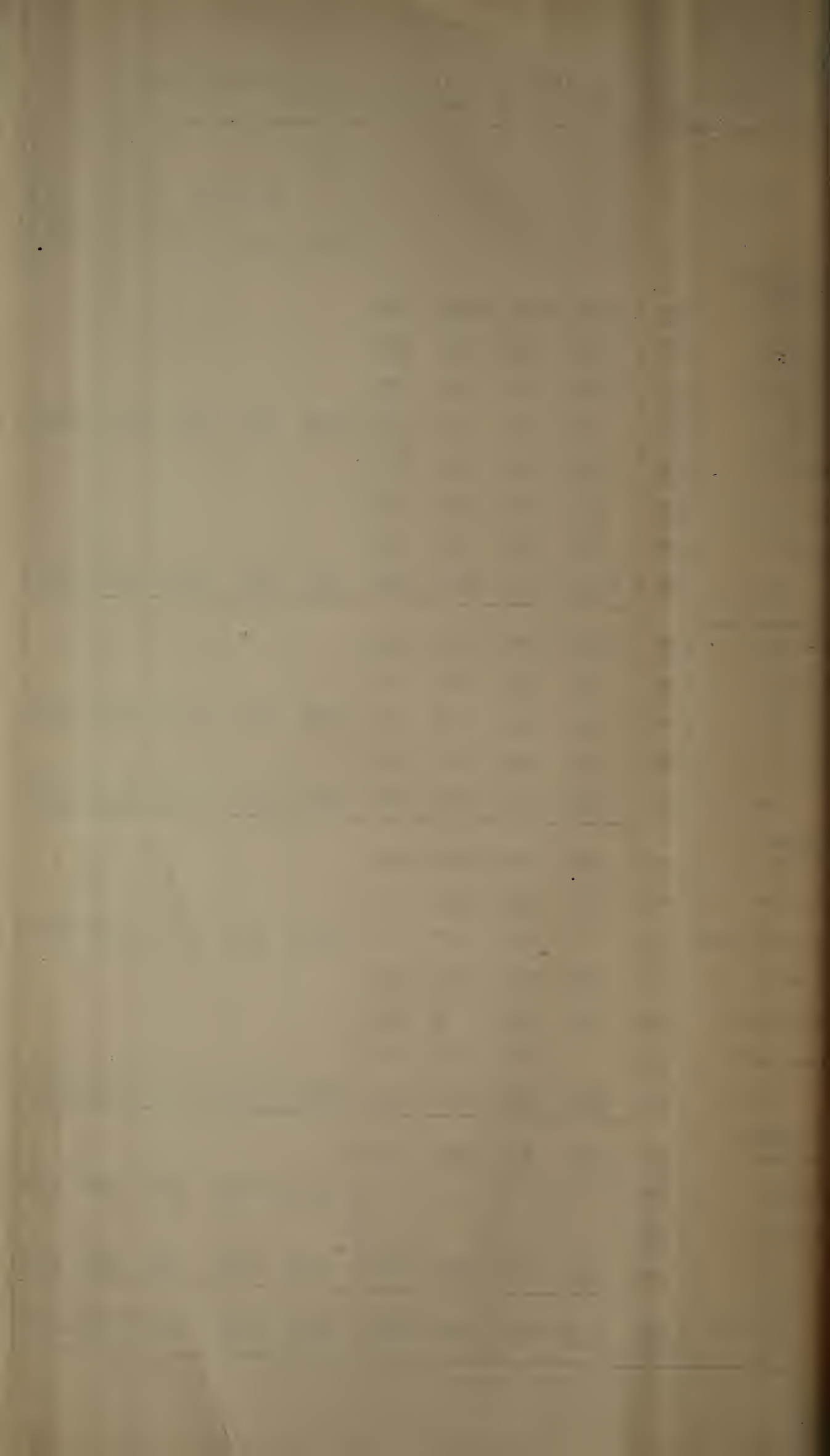
NOTES.—Van Reenen-Bethlehem Section.—93,093 Train Miles during 1906, and 44,878 Train Miles during 1905, not included.

COMPARATIVE SUMMARIES OF MAIN AND BRANCH LINE MILEAGE,
DURING THE YEARS 1905 AND 1906.

DIVISION.			TOTAL.							
			TRAIN MILES.				SHUNTING, &c.			
			Pass.	Mixed.	Goods.	Total.	Shunting.	Light Running.	Ballast.	TOTAL ENGINE MILES.
GREYVILLE.										
Main Line	...	{ 1906 ... 1905 ...	134,020 177,858	209,600 155,649	470,312 476,291	813,932 809,798	572,759 560,870	39,663 35,595	20,731 16,462	633,153 612,927
North Coast	...	{ 1906 ... 1905 ...	63,510 76,212	40,965 20,462	38,452 39,367	142,927 136,041				
Natal-Zululand	...	{ 1906 ... 1905 ...	32,256 48,938	50,612 42,748	36,812 30,337	119,680 122,023				
Zululand	...	{ 1906 ... 1905 ...	837 1,742	35,964 40,024	1,114 529	37,915 42,295				
South Coast	...	{ 1906 ... 1905 ...	79,101 102,025	67,514 40,575	36,253 40,555	182,868 183,155				
Bluff	...	{ 1906 ... 1905 ...	6,039 7,726	3,017 1,752	10,710 6,975	19,766 16,453				
Umzinto	...	{ 1906 ... 1905 ...	6,382 8,783	5,839 4,598	2,686 1,913	14,907 15,294				
Total	...	{ 1906 ... 1905 ...	322,145 423,284	413,511 305,808	596,339 595,967	1,331,995 1,325,059	572,759 560,870	39,663 35,595	20,731 16,462	1,965,148 1,937,986
PIETERMARITZBURG.										
Main Line	...	{ 1906 ... 1905 ...	138,527 188,940	200,889 150,870	808,787 779,279	1,148,203 1,119,089	145,728 153,490	54,073 45,990	20,406 18,240	220,207 217,720
Richmond	...	{ 1906 ... 1905 ...	9,954 11,910	12,712 10,169	8,975 12,084	31,641 34,163				
Natal-Cape	...	{ 1906 ... 1905 ...	11,031 7,835	59,661 29,838	1,147 5,560	71,839 43,233				
Greytown	...	{ 1906 ... 1905 ...	10,045 21,787	99,396 86,279	29,724 35,763	139,165 143,829				
Total	...	{ 1906 ... 1905 ...	169,557 230,472	372,658 277,156	848,633 832,686	1,390,848 1,340,314	145,728 153,490	54,073 45,990	20,406 18,240	1,611,055 1,558,034
LADYSMITH.										
Main Line	...	{ 1906 ... 1905 ...	112,858 164,713	173,860 119,172	1,019,556 972,735	1,306,274 1,256,620	204,005 187,130	113,135 89,863	19,946 16,153	337,086 293,146
O.R. Colony	...	{ 1906 ... 1905 ...	2,118 2,955	26,662 26,058	46,211 32,534	74,991 61,547				
Bethlehem-Kroonstad	...	{ 1906 ... 1905 ...	455 ...	37,700 ...	19,636 ...	57,791 ...				
Dundee	...	{ 1906 ... 1905 ...	6,454 5,831	26,168 25,401	12,412 9,504	45,034 40,736				
Buffalo-Vryheid...	...	{ 1906 ... 1905 ...	1,238 6,750	26,945 25,737	788 200	28,971 32,687				
Upper Tugela	...	{ 1906 ... 1905 ...	...	1,169 ...	3,386 ...	4,555 ...				
Total	...	{ 1906 ... 1905 ...	123,123 180,249	292,504 196,368	1,101,989 1,014,973	1,517,616 1,391,590	204,005 187,130	113,135 89,863	19,946 16,153	1,854,702 1,684,736
CHARLESTOWN.										
Main Line	...	{ 1906 ... 1905 ...	114,931 106,502	66,300 55,196	207,224 264,259	388,455 425,957	75,363 82,464	16,214 18,688	2,603 1,924	94,180 103,076
Dundee	...	{ 1906 ... 1905 ...	...	21 31	...	21 86				
Buffalo-Vryheid...	...	{ 1906 ... 1905 ...	...	18 76	...	18 152				
Total	...	{ 1906 ... 1905 ...	114,931 106,612	66,339 55,303	207,224 264,280	388,494 426,195	75,363 82,464	16,214 18,688	2,603 1,924	482,674 529,271
GRAND TOTAL	...	{ 1906 ... 1905 ...	729,756 940,617	1,145,012 834,635	2,754,185 2,707,906	4,628,953 4,483,158	997,855 983,954	223,085 190,136	63,686 52,779	5,913,579 5,710,027

NOTES.—Van Reenen-Bethlehem Section—83,893 Train Miles during 1906, and 44,878 Train Miles during 1905, not included.





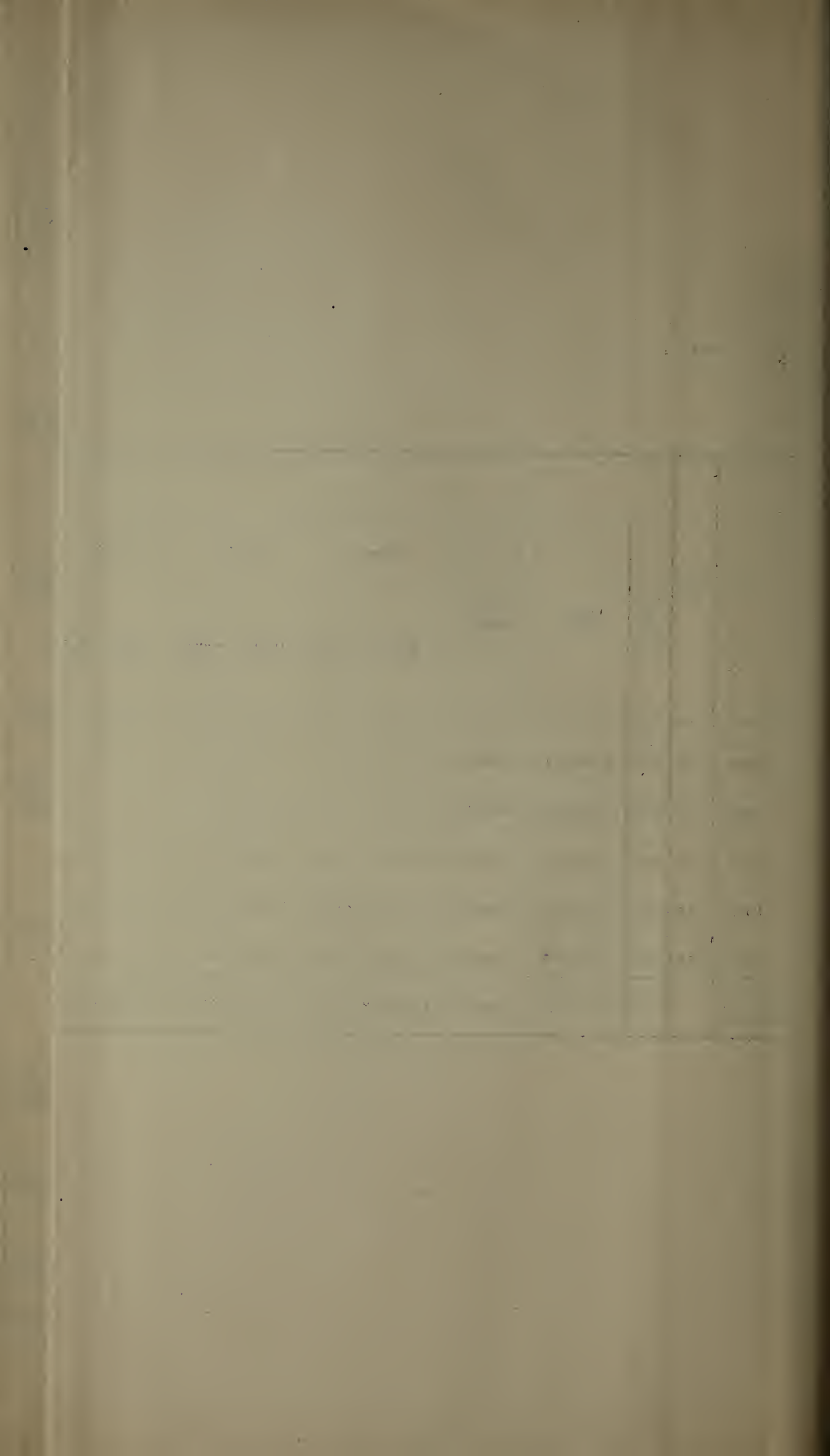
COMPARATIVE STATEMENT OF EXPENDITURE IN THE LOCOMOTIVE, CARRIAGE, AND WAGON DEPARTMENTS FOR THE YEARS 1902 TO 1906

[illegible]

Notes: Average Monthly Stock.

44,878 Train Miles on Van Reenen-Bethlehem Section not included

93,893 Train Miles on Van Reenen-Bethlehem Section not included



ANNEXURE "D."

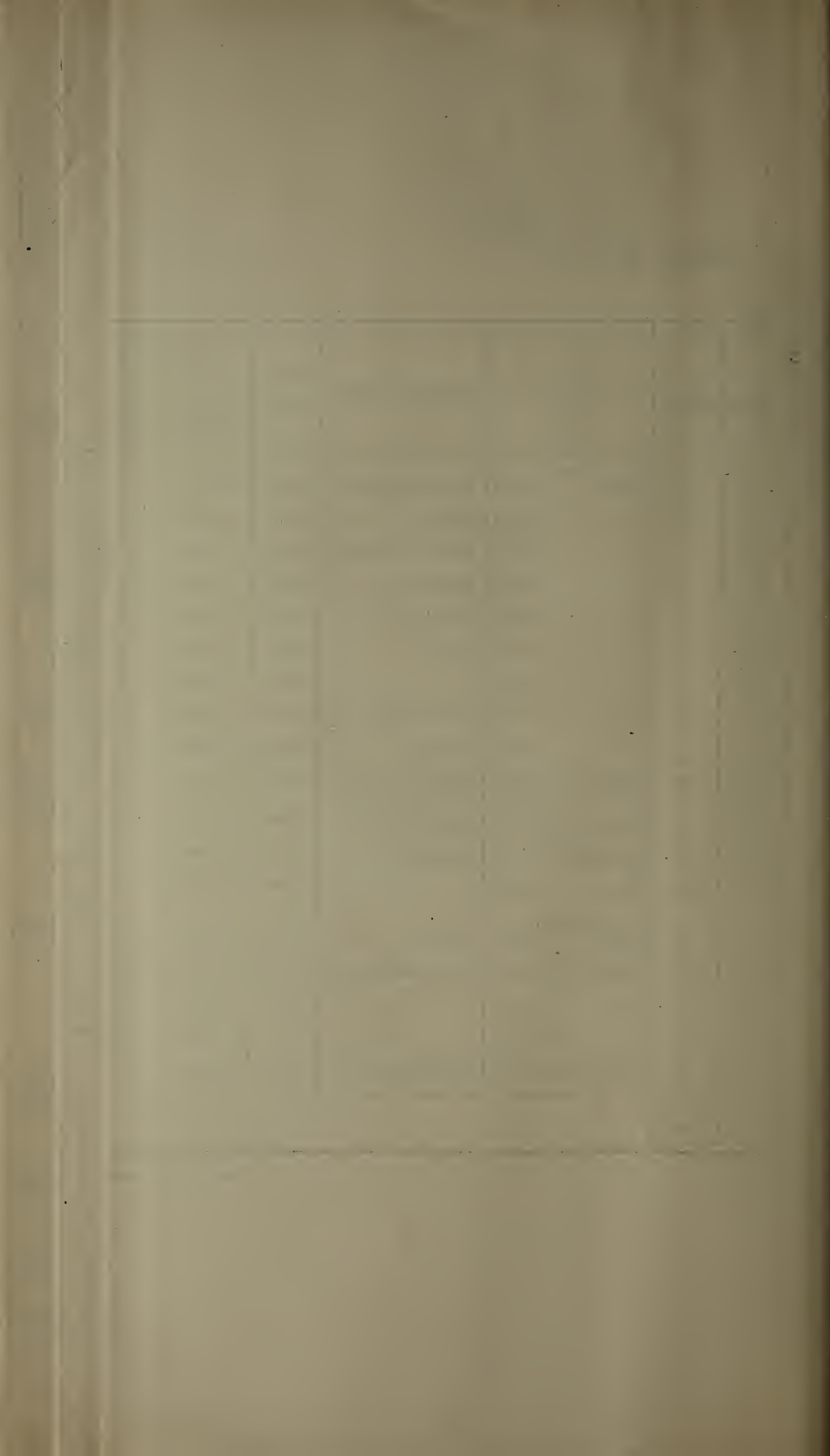
POSITION, CONDITION, AND PARTICULARS OF ENGINE POWER AS AT 31st DECEMBER, 1900.

CLASS OF ENGINE.	No. OF ENGINES.	DESCRIPTION OF ENGINE.	BUILDERS OF ENGINE.	DATE BUILT.	WEIGHT IN LBS.		ADHESIVE WEIGHT IN LBS.	TRACTION POWER PER ENGINE IN LBS.	* HAULING POWER, (Approximate, excluding weight of engine and Tender) at 10 miles per hour on 30% curve and up gradient of			CYLINDER.		COUPLED WHEELS.		HIGH TRUCK WHEELS.		HEATING SURFACE.			GRATE AREA.	WORKING PRESSURE.	WATER CAPACITY.	COAL CAPACITY.	CONDITION OF ENGINES.						ENGINE NUMBERS.							
					Engine.	Tender.			1 in 30 Working Gradient, Tons.	1 in 50. Tons.	1 in 75. Tons.	Diameter.	Stroke.	No.	Diameter.	No.	Diameter.	Tubes.	Firebrs.	Total					sq. feet.	sq. feet.	sq. feet.	sq. feet.	lbs.	galls.		cubic ft.	First Class.	Second Class.	Third Class.	In Shops Requiring Under Erection.	Waiting for Erection.	Totals.
K	3	TANK. Small ... 2-6-0	Beyer & Peacock	1877	58,016	...	43,680	10,058	78	127	174	14	20	6	3	2	2	2	0	590'00	49'50	630'50	11'00	130	700	40	1	1	1	3	Nos. 504, 506, 507							
G	15	" ... 4-6-0	Kitson	1879	65,184	...	51,968	14,216	85	137	168	14	21	6	3	2	4	2	0	611'00	58'00	669'00	11'00	175	700	40	3	1	0	15	" 11 to 14, 17 to 20, 22, 24, 26, 42, 43, 44, 508							
K	1	" ... 0-6-0	Hunslet Engine Co.	1880	43,792	...	43,782	7,020	55	90	123	12	18	6	3	0				353'00	30'00	392'00	7'00	130	450	23	1			1	" 15							
G	17	" ... 4-6-0	Stephenson	1882	65,184	...	51,968	14,216	85	137	168	14	21	6	3	2	4	2	0	611'00	58'00	669'00	11'00	175	700	40	4	4	4	4	17	" 16, 29 to 41, 45 to 47						
K	1	" ... 0-4-0	Neilson & Co.	1891	42,224	...	42,224	5,526	38	65	90	10	20	4	3	2				357'25	32'25	380'50	5'75	140	500	28	1			1	" 511							
H	1	" ... 4-6-4	N.G.R.	1899	74,144	...	46,504	11,778	87	144	198	14	21	6	3	2	8	2	0	611'00	58'00	669'00	11'00	145	1,130	80	1			1	" 21							
H	1	" ... 4-6-2	"	1901	86,464	...	59,248	12,888	94	156	217	14	21	6	3	2	6	2	0	818'32	68'26	886'58	13'60	160	1,070	65		1		1	" 25							
F	10	" ... 4-6-4	Neilson & Reid	1902	87,696	...	57,344	17,087	98	160	246	15	22	6	3	2	8	2	1	803'00	70'00	873'00	12'70	175	1,080	00	10			10	" 1 to 10							
I	1	" ... 2-6-2	Baldwin	1903	54,000	...	7,585	58	87	134	12	18	6	3	5	4	2	0	350'00	46'00	396'00	13'00	160	642	50				1	1	" 512							
D	95	Dubs "A" ... 4-8-2	Dubs & Co.	1888	105,616	...	73,360	18,673	145	234	324	17	21	8	3	3	6	2	1	888'20	90'18	978'38	15'70	160	1,376	00				95	" 49 to 113, 115 to 122, 124 to 131, 133, 135 to 140, 142 to 148							
D	5	" ... 4-8-2 (Delaware Fire Box)	Rebuilt N.G.R.	1905	108,864	...	78,848	18,673	145	234	324	17	21	8	3	3	6	2	1	928'50	62'00	991'50	23'50	160	1,358	00				5	" 114, 123, 132, 134, 141							
E	25	Impd. Dubs "B" 4-8-2	Dubs & Co.	1904	135,072	...	95,536	22,232	168	276	381	18	22	6	3	6	6	2	1	1,008'00	125'00	1,223'00	19'00	175	1,560	100	12	1	9	3	25	" 250 to 274						
C	101	Reid ... 4-10-2	"	1900	154,224	...	122,752	28,374	206	336	463	19	27	10	3	8	6	2	1	1,358'71	134'70	1,493'50	21'15	175	1,880	160	44	26	8	20	3	101	" 149 to 240					
I	2	TENDER. 2-6-0	Baldwin	1903	66,000	30,000	...	11,570	78	137	195	15	18	6	3	6	2	2	2	675'00	67'00	742'00	13'70	160	2,000	150		1		1	2	" 513, 514						
B	44	Hendrie "B" 4-8-0	Nth. British Loco. Co.	1904	154,728	85,048	125,944	33,250	235	396	552	20	24	8	3	0	4	2	4	2,004'17	128'63	2,222'80	34'00	200	3,225	200				44	" 275 to 318							
B	6	" "B" 4-8-2	"	1904	158,368	85,068	125,328	33,250	235	396	552	20	24	8	3	9	6	2	4	2,094'17	128'63	2,222'80	34'00	200	3,225	200				6	" 310 to 324							
A	2	" "A" 4-6-2	"	1905	144,368	85,068	96,992	22,934	141	256	367	19	24	6	4	3	6	2	1	2,112'00	119'00	2,231'00	28'00	180	3,225	200	2			2	" 325, 326							
L	3	7th Class C.S.A.R. 4-8-0	Neilson-Reid & Co.	1906	104,608	76,384	80,640	18,879	117	210	300	17	23	8	3	6	4	2	4	976'00	102'00	1,078'00	17'50	160	2,600	256	1	1	1	3	" 327, 328, 329							
	333																			TOTALS					168	63	35	45	32	333								

Notes.—* The calculations in connection with Haulage Power are based upon the best conditions of working.

† Approximate.

‡ Taken over from C.S.A.R. in connection with Bethlehem-Kromstad Line





ANNEXURE "E" 1.]

STATEMENT OF ENGINES ERECTED AND REPAIRED FOR YEAR ENDED 31st DECEMBER, 1906, AS COMPARED WITH YEAR 1905.

Year.	No. passed through Shops.	No. Erected New.	No. Rebuilt.	REPAIRS.			Total No. of Repairs	No. Painted and Varnished.	No. Touched up and Revarnished.	No. Fitted with New Boilers.	No. Fitted with Inclined Plane Bogies.	No. Under and Waiting Repairs.
				Heavy.	Medium.	Light.						
1905	229	33	6	54	85	51	190	60	98	9	53	81
1906	235	2	1	90	129	13	232	90	125	.	41	77

ANNEXURE "E" 2.]

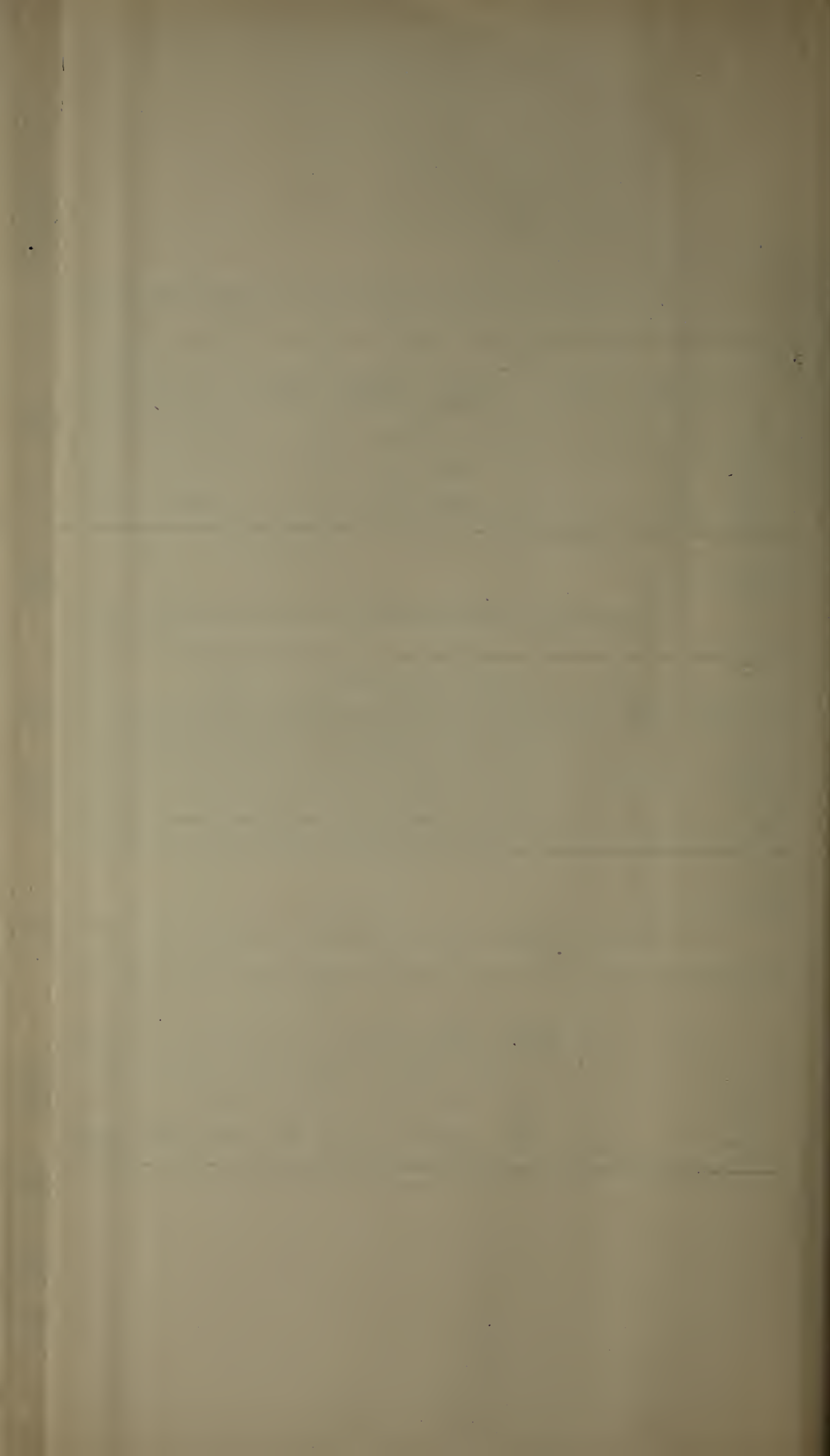
STATEMENT OF CARRIAGES ERECTED AND REPAIRED FOR YEAR ENDED 31st DECEMBER, 1906, AS COMPARED WITH YEAR 1905

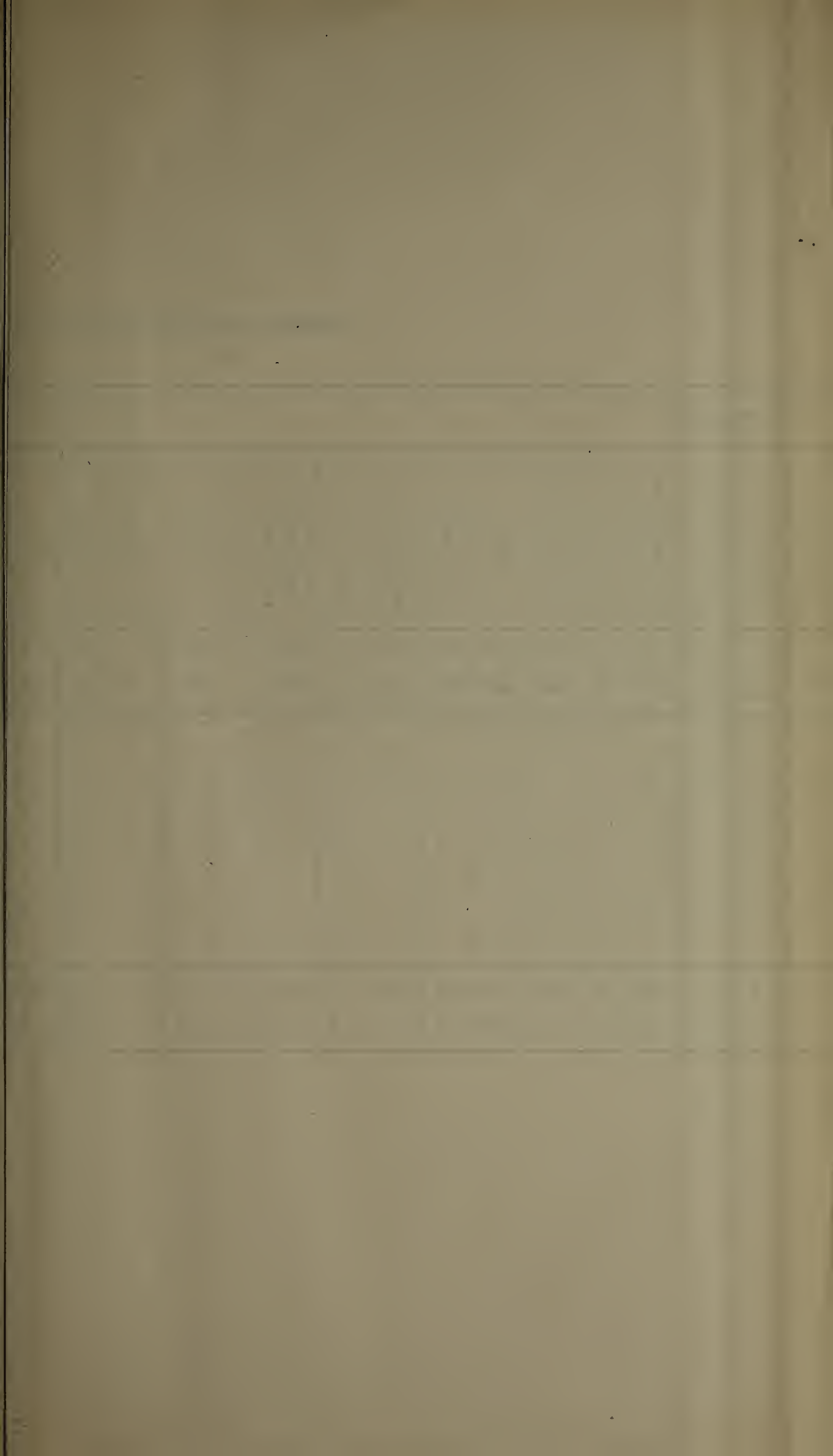
Year.	No. Erected.	No. Built New.	No. Rebuilt.	SHOP REPAIRS.					YARD REPAIRS.					No. wholly Painted and Revarnished.	No. Touched up and Revarnished.	RETRIMMED.				No. Under and Waiting Repairs.	No. Under Construction.	
				Heavy.	Medium.	Light.	Running.	Total Shop Repairs.	Heavy.	Medium.	Light.	Running.	Total Yard Repairs.			WHOLLY.		PARTIALLY.				
																Compartments.	Seats and Panels.	Compartments.	Seats and Panels.			
1905	...	13	...	151	1,785	...	4,993	6,929	423	134	82	9,715	10,354	101	67	99	119	4	52	4	24	15
1906	...	14	...	155	274	933	7,020	8,382	448	115	91	13,059	13,713	117	40	49	228	2	102	60	33	5

ANNEXURE "E" 3.]

STATEMENT OF WAGONS AND VANS ERECTED AND REPAIRED FOR YEAR ENDED 31st DECEMBER, 1906, AS COMPARED WITH YEAR 1905.

Year.			No. Erected.	No. Built New.	No. Rebuilt.	SHOP REPAIRS.					YARD REPAIRS.					No. Painted and Varnished.	No. Under and Waiting Repairs.	No. Under Construction.
						Heavy.	Medium.	Light.	Running.	Total Shop Repairs.	Heavy.	Medium.	Light.	Running.	Total Yard Repairs.			
1905	...	..	10	34	...	50	1,155	..	5,470	6,675	3,156	498	253	59,157	63,064	488	156	8
1906	..	..	16	22	...	75	115	1,118	5,696	7,004	2,818	782	260	81,097	64,957	682	204	13





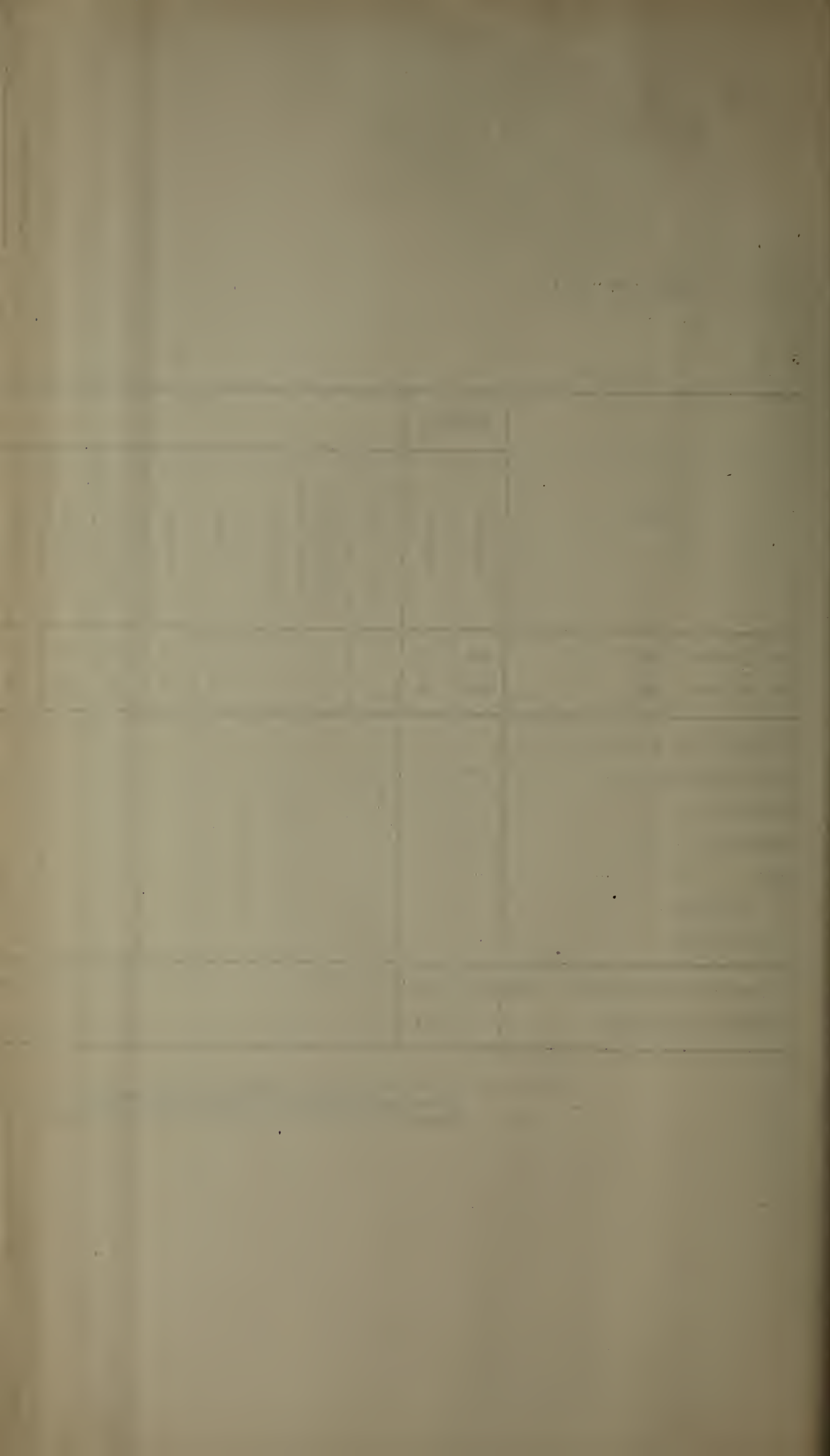


SUMMARY OF ROLLING STOCK AS AT 31st DECEMBER, 1905 AND 1906

[illegible]

*Taken over from C.S.A.R. in connection with Bethlehem-Kroonstad Line.

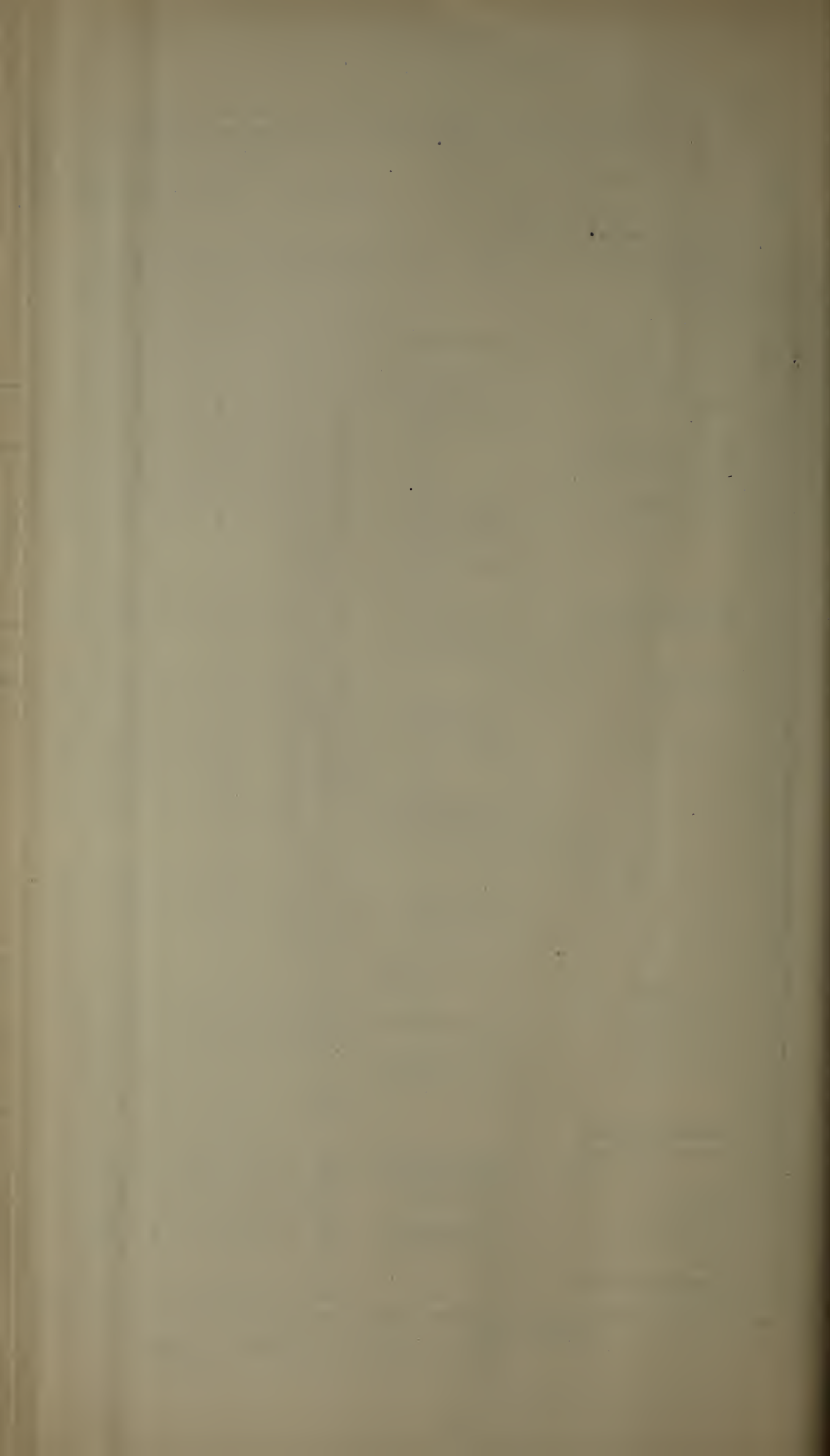
NOTES FOR 1906 - Insulated Van converted to Dairy Van.
4-Wb. High Sided Wagon to Works Wagon.
† Includes 10 ex C. S. A. R. in connection with Bethlehem-Kroonstad Line.

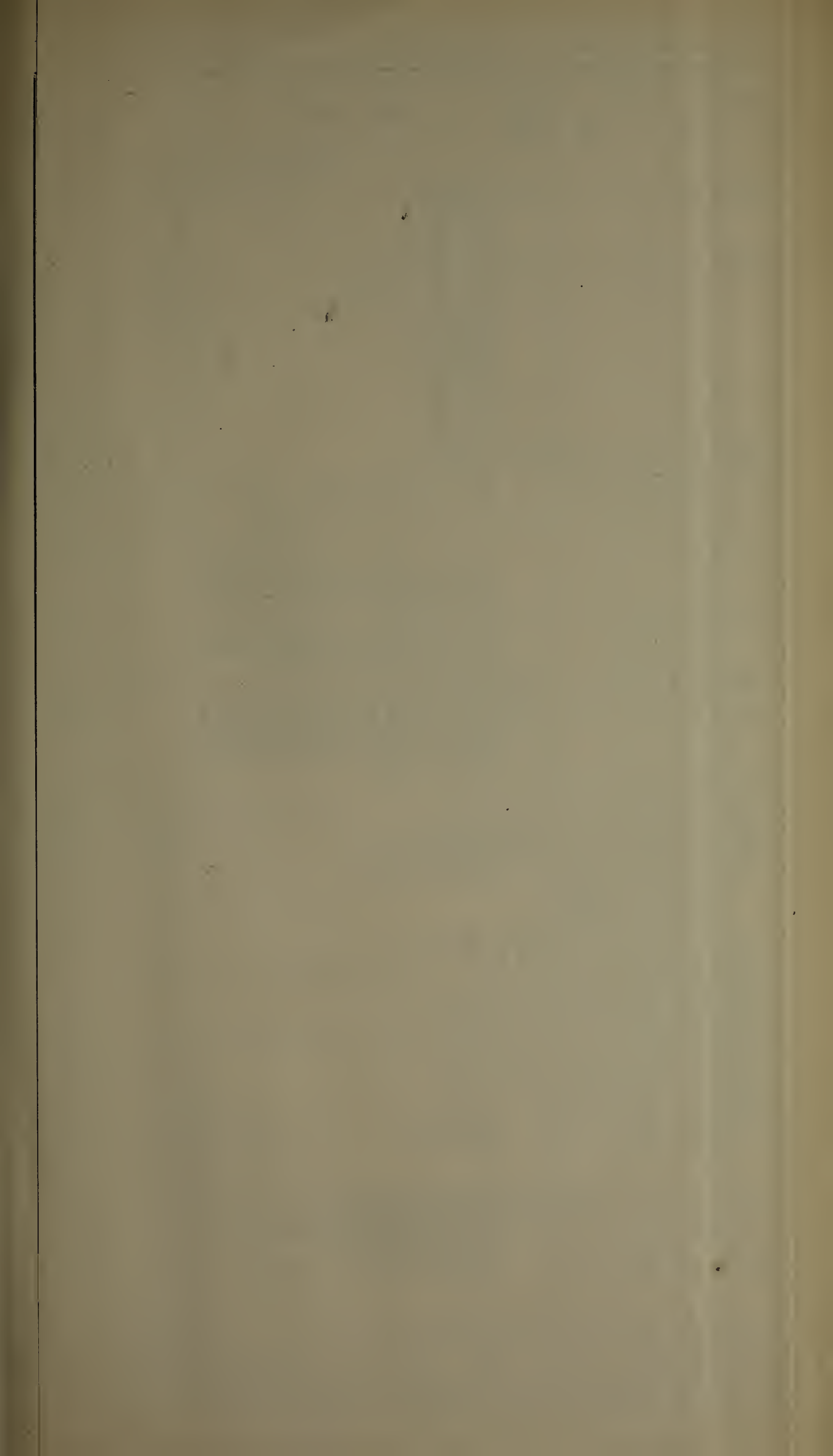


ANNE

Number of Vehicles.	
	1
	8-V
1	H
1	M
2	F ₁
1	Iu
1	Iu
1	
1	K
8	F ₁
1	
5	C ₁
9	S ₁
2	F ₁
4	C ₁
2	M
3	
4	F ₁
5	C ₁
5	S ₁
1	F ₁
1	C ₁
1	S ₁
2	
7	F ₁
4	C ₁
10	
51	
4	S ₁
6	L
10	C
32	T
1	F ₁
1	I ₁
2	C
19	
9	
1	T
1	
7	
3	
11	
66	
1	
2	C
12	
12	F
9	
3	S
18	
8	
4	S
4	C
3	S
4	F
12	F
2	
1	F
1	
19	F
10	
11	
1	
	6-
1	C
7	
2	
1	S
2	T
6	
2	
1	C
3	F
3	C
5	
5	C
	4-
12	I







GENERAL STATEMENT OF EXPENDITURE IN ELECTRICAL DEPARTMENT FOR THE YEAR ENDED 31ST DECEMBER, 1906.

STATIONS.	EXPENDITURE ON WAGES.												EXPENDITURE ON STORES.												GRAND TOTAL.
	Mileage.	Inland.	Seafare.	EUROPEANS.		INDIANS.		NATIVES.		Salaried Staff.	Rations.	Lodg. and Maintenance Charges.	TOTAL.	COAL.		Water.	Stores, Oil and Waste.	Material Repairs.	Lamp Charges.	Miscellaneous.	TOTAL.				
				Ordinary.	Overtime.	Ordinary.	Overtime.	Ordinary.	Overtime.					Weight.	Cost.										
Durban	77	21	18	9,579 0 4	1,150 18 6	269 13 9	91 8 3	321 18 3	32 5 4	2,186 10 7	154 13 7	1,113 15 6	11,836 7 9	2,054 8 0	354 4 0	340 8 5	6,219 10 3	1,859 2 2	606 12 10	5 5 8	9,322 11 10	21,568 10 0			
Greyville	1	1	1	192 10 0	12 0 0						10 5 5	223 14 5					2 17 5				34 7 7	238 2 0			
Hill Crest	1	1	1	334 9 0	47 7 3	39 12 9	13 5 1			18 3 10	13 9 4	37 4 9	367 5 6	605 19 0	38 13 10		12 11 11	7 10	25 14 5		77 14 10	465 1 0			
Inland	1	1	1	413 5 2	12 2 0	18 2 6	12 10 7			3 3 3	22 12 7	12 12 7	359 9 0	909 15 0	115 7 7		9 5 8	6 6	735 1 0		1,014 10 0	1,784 10 0			
Penningtonburg	13	4	4	1,316 4 0	218 11 7			15 18 6	3 6 0	397 15 0	29 10 6	1,368 10 0	1,777 11 0	105 8 8		52 10 0	141 5 4	234 17 8	107 11 7	611 14 2	3,000 4 0				
Moel River	1	1	1	282 15 0	54 3 0	34 6 11	19 0 6			17 0 0	10 11 11	53 13 7	355 9 0	478 19 0	28 15 6		31 0 0	6 14 0	34 4 7	77 11 0	523 1 0				
Laurensburg	1	1	1	418 2 0	17 10 0	14 27 1	8 0 6	63 16 11	15 11 0	259 16 0	16 11 11	1,491 17 6	937 19 0	105 10 0	29 7 0		58 15 0	53 10 1	284 13 0	1,078 10 0	1,778 10 0				
Newcastle	1	1	1	127 6 0	22 9 0					3 5 0		6 5 0	194 16 0				20 5 5	1 6 6			21 12 11	189 1 0			
Charlestown	4	4	4	750 11 0	150 3 5	63 16 11	17 11 10	15 5 5	6 0	59 11 0	15 5 2	63 2 7	1,115 13 6	869 19 0	49 10 11		74 7 5	56 9 11	34 15 4	14 3 5	215 15 10	1,351 9 0			
Totals	98	44	29	13,992 11 0	1,611 4 9	477 16 5	169 1 7	506 10 7	51 17 4	2,836 4 0	234 12 0	1,446 6 0	21,600 5 0	10,631 10 0	749 1 11	442 18 5	6,701 10 9	2,270 13 1	862 16 5	3 19 5	11,030 9 10	32,640 10 0			

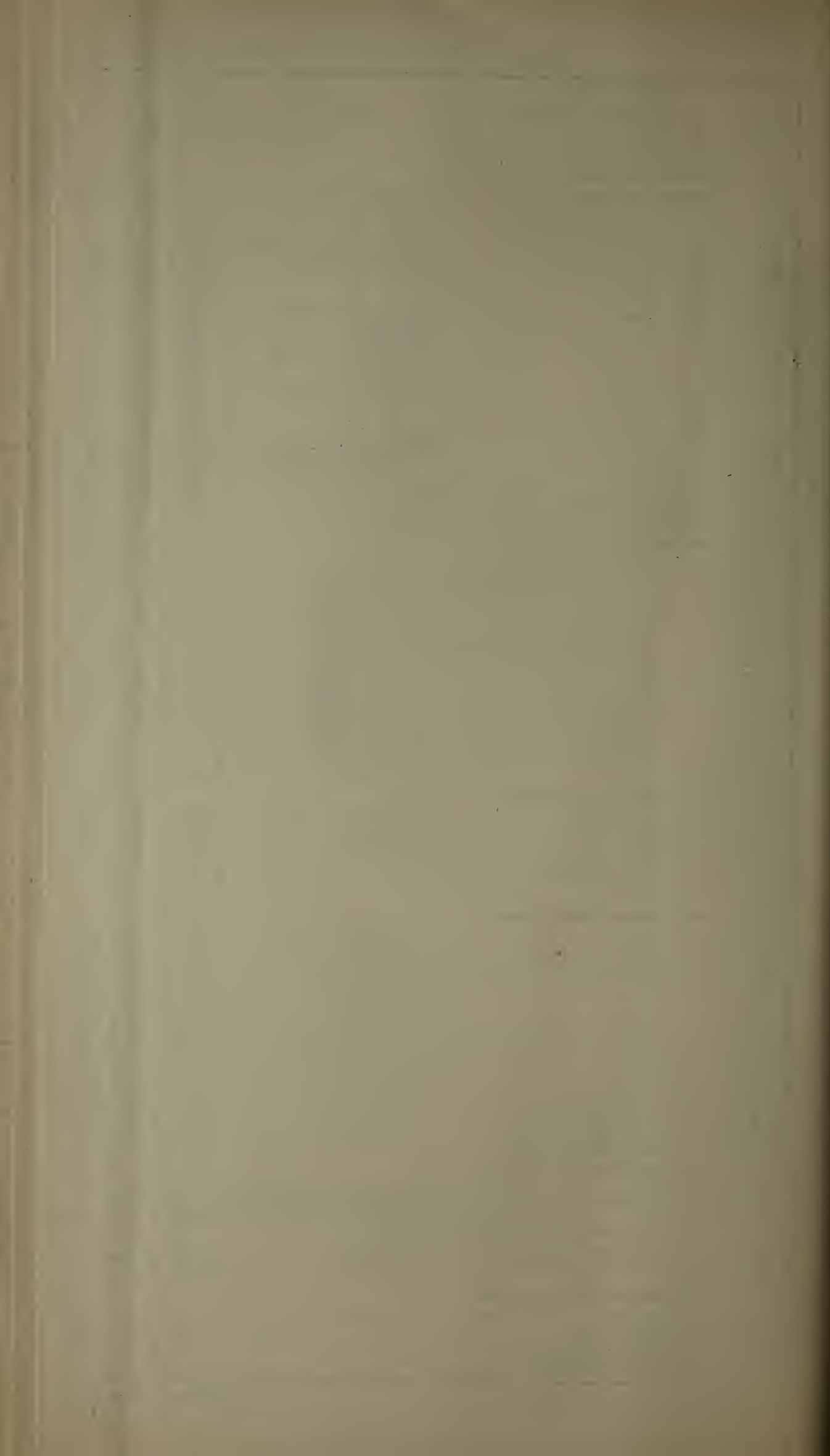
ANALYSIS OF GENERATING AND OTHER DETAIL EXPENDITURE

STATIONS.	GENERATING.										DURBAN SHOPS.	DEPARTMENTAL, VARIOUS, NATIONAL, AND OFFICES.	GOVERNMENT DEPARTMENTS.	TRAIN LIGHTING.				GENERAL CARRIAGE REPAIRS.	CONSTRUCTION.		MISCELLANEOUS.	TOTAL.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	COAL.		WATER.	ENGINE Room, Wages, &c.	BOLLER Room, Wages, &c.	DISTRIBUTION.		SAHMES.	OIL, WASTE &c.	TOTAL.				Stores and Wages.	Stores and Maintenance.	Salaries and Wages.	Stores and Maintenance.		Salaries and Wages.	Stores and Maintenance.		Salaries and Wages.	Stores and Maintenance.	Salaries and Wages.	Stores and Maintenance.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
	Weight.	Cost.				Cost.	Wages.																			Stores.	Stores.	Stores.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Durban	Total. C. 0.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															

STATEMENT OF EXPENDITURE IN ELECTRICAL DEPARTMENT FOR YEAR ENDED 31ST DECEMBER, 1906

CALCULATED UPON THE BASIS OF BOARD OF TRADE UNITS CELEBRATED AND CONSUMED

[illegible]



em.

Total.

£	s.	d.
36	18	2

...

...

...

...

36	18	2
----	----	---

Total.

£	s.	d.
06	16	8

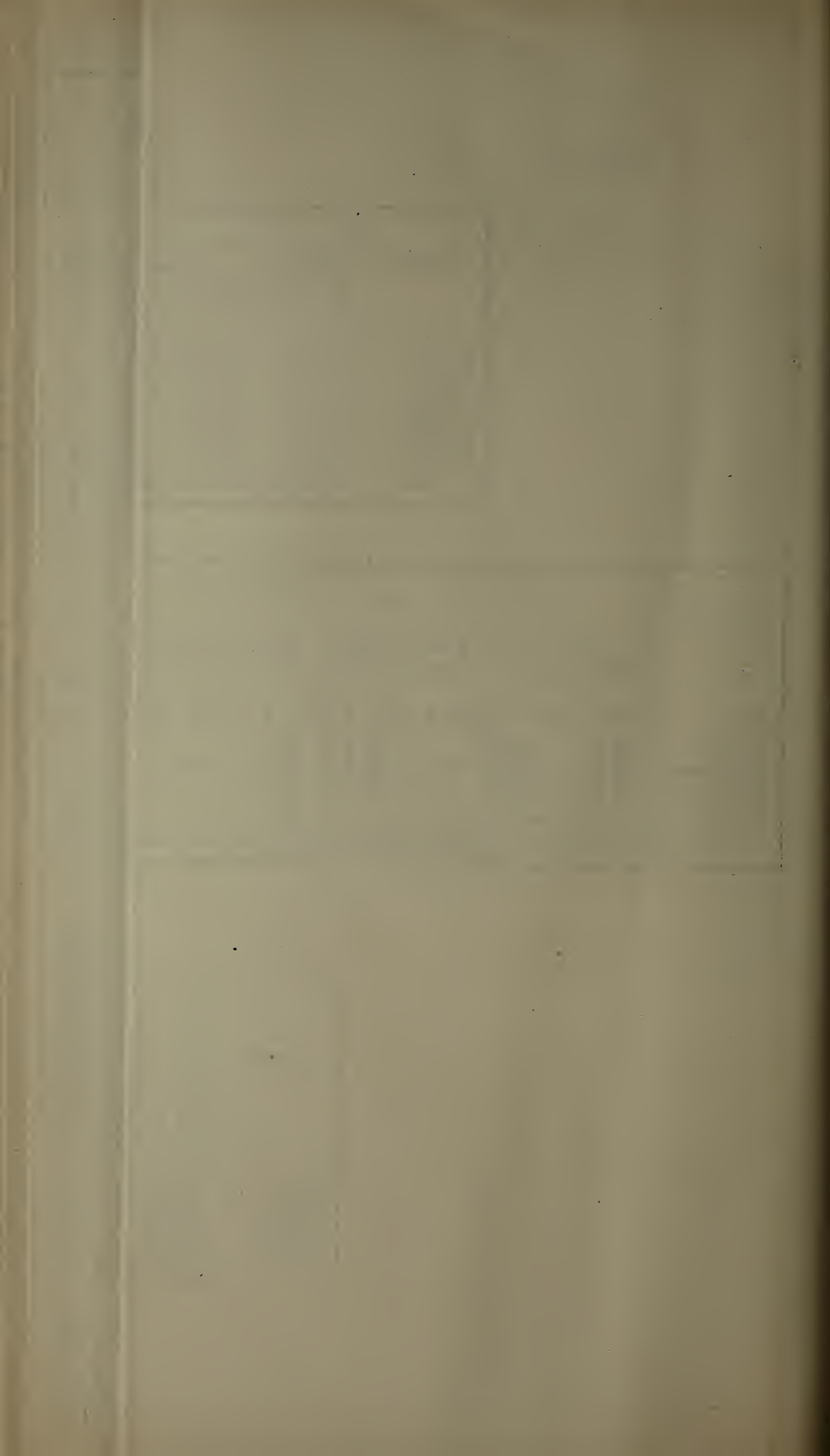
...

...

...

...

06	16	8
----	----	---



ANNEXURE "K."]

COMPARATIVE STATEMENT OF GENERATING COSTS AT
VARIOUS STATIONS, 1905-1906.

1905.				1906.		
Stations.	Expenditure.	Units Generated.	Cost per Unit.	Expenditure.	Units Generated.	Cost per Unit.
Durban ... }	4,818 15 1	995,105	d. 1·163	5,177 9 5	1,155,077	d. 1·075
Greyville ... }	637 12 1	68,612	2·231	589 17 11	75,909	1·865
Hill Crest ...	1,003 12 0	37,124	6·488	320 6 0	35,999	2·135
Inchanga ...	2,394 14 0	289,177	1·988	2,187 0 1	319,436	1·643
Pietermaritzburg ...	992 4 2	39,109	6·089	589 10 4	38,517	3·673
Mooi River ...	1,827 19 2	136,285	3·220	1,555 15 1	136,804	2·729
Ladysmith ...	32 8 11	...	...	...	...	...
Newcastle ...	1,585 8 10	67,150	5·667	1,151 6 1	84,249	3·283
Charlestown ...						

NOTES.—Newcastle and Dundee are supplied by outside Contractors.
Greyville is supplied from Durban.

ANNEXURE "L."]

TRAIN LIGHTING, YEAR ENDED DECEMBER, 1905.

Station.	Van Accumulator System.				Stone's Patent System.		
	Salaries and Wages.	Stores.	Current.	Total.	Salaries and Wages.	Stores.	Total.
Durban ...	£ s. d. 3,290 14 10	£ s. d. 1,398 18 7	£ s. d. 402 3 4	£ s. d. 5,091 16 9	£ s. d. 1,101 19 9	£ s. d. 284 18 5	£ s. d. 1,386 18 2
Inchanga ...	...	...	11 13 7	11 13 7	...	...	...
Pietermaritzburg ...	...	...	85 19 5	85 19 5	...	...	...
Ladysmith ...	...	...	424 12 3	424 12 3	...	...	...
Charlestown ...	...	...	487 3 11	487 3 11	...	...	...
	3,290 14 10	1,398 18 7	1,411 12 6	6,101 5 11	1,101 19 9	284 18 5	1,386 18 2

TRAIN LIGHTING, YEAR ENDED DECEMBER, 1906.

Station.	Accumulator System.				Stone's Patent.		
	Salary and Wages.	Stores.	Current.	Total.	Salaries and Wages.	Stores.	Total.
Durban ...	£ s. d. 2,741 15 7	£ s. d. 1,123 17 6	£ s. d. 394 15 7	£ s. d. 4,260 8 8	£ s. d. 1,517 9 6	£ s. d. 1,089 7 2	£ s. d. 2,606 16 8
Inchanga ...	...	...	3 5 4	3 5 4	...	...	...
Pietermaritzburg ...	...	...	129 0 6	129 0 6	...	...	...
Ladysmith ...	...	...	312 12 2	312 12 2	...	...	...
Charlestown ...	...	...	341 4 7	341 4 7	...	...	...
	2,741 15 7	1,123 17 6	1,180 18 2	5,046 11 3	1,517 9 6	1,089 7 2	2,606 16 8

Total Cost—Accumulator System £5,046 11s. 3d. Number of Vans 50.
Annual cost per Van £100 18s. 6d.
Stone's Patent System £2,606 16s. 8d. Number of Vehicles 73.
Annual cost per Vehicle £35 14s. 3d.

APPENDIX D.]

TRAFFIC DEPARTMENT.

REPORT OF THE TRAFFIC SUPERINTENDENT FOR THE
YEAR ENDED 31ST DECEMBER, 1906.

THE GENERAL MANAGER OF RAILWAYS,—

I beg to submit my report for the year ended December, 1906, embracing the following subjects :—

- I.—Proposed Marshalling Yard and Goods Shed on Congella Railway Reserve.
- II.—Banking of Down Trains on 1/30 gradients.
- III.—Advertising and Industrial Expansion.
- IV.—Industrial Expansion.
- V.—Road Motors.
- VI.—Motor Trains.
- VII.—Native Rebellion.
- VIII.—School Vacations.
- IX.—Suburban Traffic.
- X.—Station Lighting.
- XI.—Laundry.
- XII.—Cleaning and Fumigating of Carriages.
- XIII.—Time-keeping of Mail, Passenger and Mixed Trains.
- XIV.—Improved Point and Signal arrangements.
- XV.—Union Switch and Signal Company's Electric Train Staff Instrument, Model No. 2.
- XVI.—Water Supplies.
- XVII.—Coloured Traffic.
- XVIII.—Coal Traffic.
- XIX.—European Staff.
- XX.—Coloured Labour.

I.—PROPOSED MARSHALLING YARD AND GOODS SHED ON CONGELLA RAILWAY RESERVE.

1. A large area of the Congella lands has now been reclaimed and a portion reserved for railway purposes. It might be found advisable to revive a proposal which was under the consideration of the late Administration during 1904, action being then deferred until the land was made suitable (*vide* General Manager's circular 137, April 1904), to utilize a part of that land to establish goods sheds, marshalling sidings, &c. as a relief to the congested sidings at Durban, and if practicable to define the following comprehensive scheme :—

- a. Marshalling yard, storage sidings for shipment coal, goods sheds, &c., to gradually concentrate all railway goods work presently done at Durban at the reclaimed Congella land.
- b. New line giving more direct connection with the Bluff, in order to facilitate and reduce mileage, in the exchange of traffic on both sides of the harbour.

2. **Additional Platform Facilities at Central Station.**—The adoption of this scheme will have the advantage of relieving the congestion of the passenger platforms at the Central Station, which is gradually becoming more acute, particularly during the morning and evening "crush" hours, and also at holiday seasons, and additional platforms must be contemplated to relieve it.

3. **Close proximity of Locomotive Works and Goods Sidings prevents extension of Passenger Shed.**—The large area occupied by and allotted to the use of the Locomotive Department practically adjoining the present passenger shed, renders any satisfactory extension of the platform accommodation impracticable, until the goods traffic sidings are removed and accommodation provided at Congella.

4. **Present Facilities for Shunting Trucks and handling Goods Traffic Uneconomical.**—The goods sheds facing Pine Street have been gradually extended, often in a manner which renders the economical handling and shunting of traffic impossible, and for the same reason the work of the checkers impeded, and facilities for the public and handling of goods mechanically are of a

primitive and uneconomical character, whereas with modern designed sheds equipped with mechanical appliances the saving in wages alone would more than pay the interest on capital cost of new buildings.

5. **Corporation Ground too Expensive.**—The value placed by the Corporation on suitable sites near to the centre of the town would render the cost of extending, adjacent to the present yard, very heavy.

6. **Facilities required in order to cope with present and probable future Requirements of Traffic at Congella.**—The large area reserved on the Congella Reclamation for railway purposes should be laid out so as to provide :—

- a. A large sorting and shunting yard at which all traffic could be dealt with.
- b. A modern goods shed capable of dealing with probable requirements for the next 25 years, with provision for subsequent enlargement.
- c. Repair yard for rolling stock.
- d. Running shed for goods locomotives.

7. **Access to and from proposed New Marshalling Yard, &c.**—Through access :—

- a. With Point *via* the Esplanade proposed Reclamation.
- b. To Durban Central station for connection with North Coast Line, and
- c. With the main line to South Coast Junction, should be provided from sorting and goods yards.
- d. Access to the goods sheds by road in the direction of Berea Road Station, and to the area north of the existing main line by means of overbridges will be required.

8. **Provision of Passenger Station on Esplanade.**—The existing station at Durban is most inconveniently situated for sea-borne passengers. A large area of land will be reclaimed when the Esplanade Quay is built, and provision might be made for a passenger station where sea-borne passengers with luggage for the interior could entrain direct from steamers.

The present station could be used for North Coast Line, Excursion and other Passenger traffic; the area of land between it and the locomotive workshops will probably afford sufficient scope for the expansion of this traffic.

9. **Release and sale of land in Pine Street not required under proposed new scheme.**—The scheme as outlined above will release for sale valuable land, belonging to the Department, facing Pine Street; also allow of the closing of the present Point line with the opening of the Esplanade connection, and provide conveniently placed modern goods sheds at both extremes of the Town: Point, Railway and Bond Store for the East, and at Congella for the West end.

10. **Economical features of Scheme.**—The cost of such a scheme will be very much less than if carried out on land purchased elsewhere, while in addition to the amount realised by the sale of the land facing Pine Street, other factors contributing to the provision of interest on the capital expenditure, will be found in the more economical handling of goods and the concentration of railway and shipping work contiguous to both sides of the Bay, and in direct connection with each other.

11. The time in my opinion is now opportune when such a scheme might be formulated, and any increased accommodation provided in future should as far as practicable harmonise with the proposition submitted.

II.—BANKING OF DOWN TRAINS ON 1/30 GRADIENTS.

1. The system of working Down goods trains over the severest gradients, viz. :—

- a. Estcourt and Highlands 15½ miles, 1/30 gradients.
- b. Umsindusi and Thornville Junction 8¾ miles, 1/30 gradients.
- c. Drummond and Alverstone 2½ miles, 1/30 gradients,

which was brought into operation during the past year has led to substantial reduction in expenses, as well as expediting the transmission of the coal traffic to the Point.

2. The advantages briefly stated are as follows :—

- a. The saving in train mileage by the banking engine not being required to run the entire distance hitherto necessary in the case of "Cross Trip" trains.
- b. The dispensing with the "Cross Trip" train guards.
- c. The easing of the train staff sections by reduced number of trains in consequence of the increased loads of banked trains and therefore greater facility in operating the trains.
- d. Retention of the unbroken load thereby obviating shunting operations at both ends of the severe sections, saving of time, and reduced delays and reaction in consequence. Latter applies to both clauses c. and d.
- e. The conveyance of increased load being the equivalent of the two single loads for the tractive power of the respective engines employed, plus the weight of one van, 10 tons, dispensed with, and
- f. Expeditious transit of traffic by abolition of staging, and lessening demand for siding accommodation.

3. Until recently goods trains were assisted by a second engine from Inchanga to Bothas Hill, the full distance run by the cross trip trains, but by making provision for watering the engine at Drummond, it was found practicable to limit the "banking" to the section Drummond and Alverstone, thereby effecting a saving of $9\frac{1}{2}$ train miles on each trip, and similar arrangements are being made to terminate the "banking" over the Umsindusi—Thornville Junction section at the $62\frac{1}{4}$ mile post, which alteration, together with the saving in mileage between Maritzburg and Umsindusi, will also effect a saving of $12\frac{1}{2}$ train miles per trip.

4. A particular feature in connection with the "banking" system, to which I might call attention as worthy of careful consideration in conjunction with future improvements to the main line, is that the "banked" load, over the more severe gradients is equal to, if not greater than, the ruling load over the 1 in 50 gradients. On completion of the improvements to a 1 in 50 grade between Ladysmith and Estcourt, the load of 390 tons gross can be taken throughout to Mooi River with the assistance of the "banking" engine between Estcourt and Highlands; and with a continuance of these improvements on the following sections, viz:—

a. Mooi River and Nottingham Road.

b. Lidgeton and Hilton Road.

the same load, with the assistance of the "banking" engines, over the Umsindusi—Fox Hill and Drummond—Alverstone sections, can be taken throughout from Ladysmith to Point. The present load from Cato Ridge to Bothas Hill is 368 tons, but recent dynamometer trials have practically demonstrated that a load of 390 tons can be satisfactorily hauled by the "Hendrie" engine.

5. The ruling load for each train under existing conditions between Ladysmith and Maritzburg is 215 tons gross, and between Maritzburg and Durban 200 tons gross, so that the advantages of increasing the ruling load to 390 tons gross, with an increasing coal tonnage is very obvious, and justifies the expenditure necessary to continue the work of improving those portions of the main line indicated, owing to the reproductive advantages effecting greater economies in working by the reduction in mileage, and the equally important accelerated transportation of shipment coal, and also, greater use of rolling stock.

GRADES AND HAULING POWER.

6. The question of grades is a most important one in connection with the economical working of railways, and by continuation of the improvements of the main line, the financial results of the past are capable of still greater economy in the maintenance of the permanent way, etc., and by increased loads.

7. The following statement will illustrate the advantages of easier grades and hauling power of locomotives under existing authorised speeds of trains:—

GRADE.	HENDRIE ENGINE.				REID ENGINE.	
	WORKING PASSENGER TRAINS.		WORKING GOODS TRAINS.		WORKING GOODS TRAINS.	
	Tons Hauled.	Speed per Hour.	Tons Hauled.	Speed per Hour.	Tons Hauled.	Speed per Hour.
1 in 30	170	12·85	200	9·1	200	9·1
1 in 50	210	19·28	390	8·32	390	8·32
1 in 60	...	...	485	13·30	485	13·30
1 in 70	270	24·86	580	14·1	580	14·1

It will therefore be seen that the same engine working a Passenger train weighing 210 tons over a grade of 1 in 50, or weighing 270 tons over a grade of 1 in 70, at speeds of 19·28 and 24·86 miles per hour, respectively; over a grade of 1 in 30—the ruling grade of the Colony—a train of 170 tons only can be taken, at the low speed of 12·85 miles per hour.

When the same engine is put to haul a goods train on a grade of 1 in 30, it can only take 200 tons at the speed of 9·1 miles per hour, but on a grade of 1 in 70 it can take a train of 580 tons at 14·1 miles per hour.

8. The following table will show the increase in the train loads effected by the Deviations, which, with the exception of the down section from Ladysmith to Estcourt, have been completed :—

DEVIATIONS.				TRAIN LOADS.	
				UP.	DOWN.
PADLEYS--HILL, CREST.					
	Originally 1 in 30 grade	...	...	...	295
	Altered to 1 in 50 grade	...	...	...	425
UMSINDUSI--MARITZBURG.					
	Originally 1 in 30 grade	...	...	295	230
	Altered to 1 in 50 grade	...	...	390	442
ESTCOURT--LADYSMITH.					
	Originally 1 in 30 grade	...	...	242	325
	Altered to 1 in 50 grade	...	...	390	390

9. These deviations having been completed, the following sections which operate against the ruling down load of 390 tons, remain to be dealt with :—

- a. Estcourt to Highlands.
- b. Mooi River to Nottingham Road.
- c. Lidgetton to Hilton Road.
- d. Umsindusi to Thornville Junction.
- e. Drummond to Alverstone.

The most urgent of these are "b" and "c," on completion of which it will be possible to convey a continuous load of 390 tons from Ladysmith to Durban, by the assistance of the "banking" engines over the sections "a," "d" and "e." The latter, it is anticipated, will be a very costly undertaking, and the "banking" system should be continued until these improvements are effected.

10. At pages 60 to 71 of my American Report I have dealt very exhaustively with the economical aspects of Train Loads, Tractive Power, and Improvement of Grades, in relation to these railways, but I would specially direct attention to the far-reaching advantages obtained by the *Dynamometer Car* tests on the American and British Railways in deciding what class of locomotive and rolling stock may be most economically worked over those lines.

11. One of our cars has been fitted with a dynamometer spring in connection with a Boyers' speed recorder, and a series of trials have been made on the main line, as it is of the utmost importance that we should ascertain :—

- a. Whether the locomotives now in use are transmitting a correct proportion of their indicated horse power to the drawbar, or whether their internal friction and the rail resistance are to the wheel base adopted, are consuming an inordinate amount of the power, and if so, whether the wheel bases of any new locomotive at least cannot be so modified as to overcome this.
- b. Whether a ton of paying load is more easily hauled in any particular class of rolling stock over this railway, which owing to its extreme curves and grades presents almost unique conditions.
- c. Whether the grade compensation for curvature allowed on the deviations recently constructed and contemplated is sufficient.

12. The experiments already made by the dynamometer tests have demonstrated that :—

- a. As the train load is concentrated in few vehicles the tonnage resistance is diminished.
- b. The drawbar pull and not the tonnage is the only economical basis of computing the train load, and thus securing the engine being worked to its full capacity.

13. In a recent interesting experiment made on the Lancashire and Yorkshire Railway Company it was demonstrated that their highest capacity truck, viz. (30 ton) could be hauled with less power than that of a lower capacity. This is particularly interesting and in addition to the advantage obtained of being able to convey a given quantity of traffic in fewer trucks and with less non-paying weight, there is an enormous advantage gained by economising space at stations where sidings are limited and the extension of the accommodation would be very costly; this will be readily appreciated when it is stated that the daily average tonnage of shipment coal under load exceeds 15,000 tons, for which sidings have to be provided at Durban, Point and the Bluff.

LOADS TABLE.

14. The subjoined statement indicates the improvements which have been effected in the loads since 1903, and the further advantages to be derived by the proposed deviations between Mooi River and Nottingham Road and Lidgetton and Hilton Road.

TRAIN MILEAGE.

15. The total train mileage for the year was 4,628,953 as against 4,483,158 for the year 1905, or an increase of 145,795 miles. The increase is accounted for by the expansion of the Natal coal industry, the Native Rebellion, and the extensions of the Natal-Cape, Upper Tugela and Orange River Colony Lines (117 miles) viz. :—

a. Natal-Cape	Extension, 15¼ miles.
b. Upper Tugela	" 13¼ "
c. Orange River Colony	" 88½ "

16. Daily attention; by scrutiny of train journals, loading of trains and trucks; has ensured economical train working and the restriction of train mileage.

17. The passenger service has, not without dissatisfaction to the public, been reduced as far as the conditions will admit, the extent of which might be gauged by a comparison of one week's mileage in December, 1906, as against a corresponding week in 1905, which shows a decrease of 2,572 train miles for the week, or, allowing for the increased mileage (1,964) over the new extensions, etc., 608 miles per week.

III.—ADVERTISING.

1. The advertising possibilities in connection with these railways is well worthy of continued attention. In the past, in addition to newspaper advertising, guide books, &c., descriptive illustrated articles on Natal and her Railways have been regularly contributed to the South African, Australian, and British Press, and to Messrs. THOS. COOK & SONS' monthly Gazette, which is circulated in all parts of the world.

2. Photographs of coast and inland scenery are exhibited in panels of carriages, and arrangements have been made to inter-change views with the Cape and Central South African Railways. This will not only enhance the interior of the carriages, but also have a distinct advertising value.

3. Selected enlarged mounted views of the Drakensberg, &c., have also been supplied to the Chambers of Commerce, and principal Hotels in South Africa, Imperial Institute, &c., London, and in the permanent Exhibition of the World's Railway, Chicago.

IV.—INDUSTRIAL EXPANSION.

1. There is also the question of industrial expansion, and in my American Report there is reflected the outline of a scheme adopted by certain American Companies to this end by the appointment of what is termed an "Industrial Commissioner." There is so direct a connection between the creating and the subsequent handling of traffic that the greater the development of industries and the opening up of lands the greater the prosperity of the railways, and the chief aims of the Commissioners are directed towards "creating" industries by ascertaining most suitable localities, deposits, and general adaptability of physical and climatic conditions, as well as the profitable opening up of new stock and agricultural areas.

2. He is in direct touch with the railway authorities, and all necessary siding or other conveniences are thereby rapidly advanced to promote the quickest possible development of traffic and producing projects.

3. Other South African Railway Administrations have already mooted the establishment of a Railway Industrial and Intelligence Bureau in London, and there is much to be said in support of the institution of an office for the dissemination of intelligence in respect of all matters relating to Natal.

V.—ROAD MOTORS.

1. The success which has attended the introduction of road motor cars for the conveyance of passengers and general goods in rural districts of Great Britain where there is no direct rail connection, as feeders to railways, prompts me to again suggest their adoption where they could be utilised in certain districts of this Colony.

2. Experience goes to prove that the provision of such services *create* and foster a traffic, which, should it in course of time develop beyond the capacity [of the cars, may justify the construction of a light railway.

3. The outlay involved by the essential improvement of the roads to be used by the motor cars is a permanent economic asset which contributes to the development of the Colony by aiding the collection of traffic from agricultural districts to supply the local markets, whereby new areas of supply are opened to the public.

4. It is also possible for improved postal facilities to be afforded to remote districts if the cars are utilised for the conveyance of mails.

5. With the aid of a regular service the farmers in districts of Natal where progress is impossible because of the difficulty of communication could be put into direct touch with the railways and benefit in point of facilities, cost and time.

6. The specific advantages of road motors may be briefly tabulated as follows :—

- (a) Reduced capital outlay involved in establishment of rail service.
- (b) Reduced working cost.
- (c) Elasticity of service, *i.e.*, motors not tied to rails, being unremunerative in one district can be transferred elsewhere.

7. The suitability of roads and their construction and maintenance are important factors in the successful and economical working of cars.

VI.—MOTOR TRAINS.

1. The question of the introduction and working of motor trains on these lines has, for some time, received careful attention.

2. Watchfulness as to the experience of British and Colonial Railways during the past twelve months confirms the opinion I formed when in England in 1905 (see my *American Report*, pages 123 and 127), and supports the attitude adhered to by the Administration, *viz.*, that keeping in view the severe grades, and also the peculiar nature of our passenger traffic by reason of the necessity for the segregation of Indian and Native passengers, the most economic manner of dealing with the motor train problem in Natal is by extended use of small detachable steam engines, which means the utilisation of the older locomotive stock.

3. Several railway companies who formerly experimented with the single unit motor train are now reverting to the use of their small locomotives with a specially designed coach to meet local traffic requirements ; prominent amongst which are the London and South Western, North Eastern, Great Western, and London, Brighton and South Coast Railways, and as a result of experience, the general opinion at the present time is that, taking into consideration interest on first cost, and allowing for the wages for the third man, a small locomotive retired from regular service can be equipped with a single car to work a branch line cheaper than the line can be worked with a unit motor car. This cautious policy has been followed by Natal with satisfactory results.

4. Interesting and successful experimental trials have been made with gasoline rail cars by the Union Pacific Railway, America, and are still being continued. It is the intention of the Central South African Railway Administration to have a series of trials made with a gasoline type of motor, the result of which will be watched with interest by other South African Railway Administrations, not only as to its economical advantages but also to its utility in hauling one or more trailers, according to the exigencies of the service required.

VII.—NATIVE REBELLION.

1. The table which is given below enables one to form an idea of what the Department had to contend with in meeting the many emergent demands for rolling stock, &c., in connection with the Native Rebellion, and it is pleasing to record that not a single hitch occurred in moving the different columns over these railways.

2. I cannot refrain from expressing my appreciation of the excellent services rendered by the Traffic Officers and Staff during a period which imposed a heavy strain upon them.

Date.	Officers.	Men.	Natives.	Horses.	Mules.	Oxen.	Guns and Limbers.	Ox Wagons.	Supplies.
February ...	92	1,608	5	1,477	30	16	8	7	<i>Tons.</i> 450
March ...	134	1,542	129	1,746	...	24	35	7	245
April ...	71	3,086	24	2,696	178	6	29	24	296
May ...	7	2,169	147	1,207	...	80	5	1	2,036
June ...	25	2,200	364	1,459	75	...	12	1	1,890
July ...	177	3,753	576	2,758	367	84	9	41	1,961
August ...	184	4,473	2,899	3,380	61	1,015	...	70	1,855
September ...	4	922	903	669	70	4	...	7	1,052
October ...	6	183	200	191	50	...	...	99	630
	700	19,936	5,247	15,583	831	1,229	98	257	10,415

4. The greater portion of the Militia Force was conveyed by special trains, the ordinary passenger trains being utilised (when serviceable) in conveying small parties.

VIII.—SCHOOL VACATIONS.

1. In the past difficulties have been experienced in making arrangements for the comfortable conveyance of children to and from schools at Vacation periods,

2. A too tardy response on the part of Principals of Schools and also parents to co-operate with the Department has been responsible for the inconvenience inseparable from having to carry large numbers of children without previous advice.

3. Spare carriages are stored at various centres at these periods to meet emergencies, and with a more cordial acquiescence from the school authorities to our overtures, inconvenience to both the scholars and the Department should almost entirely disappear.

IX.—SUBURBAN TRAFFIC.

1. The new design of carriage of the 60 ft. 6 in. type with ten compartments in each, providing accommodation for 100 passengers recently placed on suburban traffic has enabled the Department to convey 480 passengers in one train of five carriages as against 482 passengers in one train of nine carriages of the 36 ft. 6 in. type. These new carriages are not only found very useful for suburban traffic, but are also of considerable advantage in dealing with excursionists during holiday seasons. There is also the advantage of the increased drawbar pull over the severe grades and more economical working of trains.

2. The following comparison will better illustrate the advantage referred to in the preceding paragraph :—

	No. of Cars.	No. of Compts.	No. of Passengers.			Length of Train.	Weight of Train.		No. of Axles.
			1st.	2nd.	Total.		Tons.	Cwts.	
60 ft. 6 in. type of carriage ...	5	50	150	330	480	302 ft. 6 in.	139	11	20
36 ft. 6 in. type of carriage ...	9	53	152	330	480	328 ft. 6 in.	149	16	36
In favour of 36 ft. 6 in. type ...	...	...	2	...	8	...	...	...	...
In favour of 60 ft. 6 in. type ...	4	3	...	...	...	26 ft. 10 in.	11	5	16

3. Four more carriages of the 60 ft. 6 in. type are under construction in the Workshops, and will shortly be completed and placed on traffic.

X.—STATION LIGHTING.

1. The better illumination of stations has recently been receiving special attention, and experiments are at present being carried out at Berea Road with a view of making comparative tests of the illuminating power and cost of "Petrolite" as compared with acetylene gas and paraffin oil. The experience obtained of the petrolite lamp has, so far, been satisfactory, but fragile gauze mantles are necessary and costly adjuncts.

2. Acetylene gas, which is installed at Umbilo, Bellair, Cato Ridge and Glencoe Junction, while giving satisfaction, is too expensive, and enquiries are being continued with a view, if possible, of securing a cheaper illuminant.

3. The following statement shows the cost of Station lighting during the past year :—

PER 16 CANDLE POWER.					
Petrolite	...	...	...	...	0·06 per hour.
Paraffin	...	...	...	...	0·19 "
Acetylene Gas	...	...	...	...	0·35 "

XI.—LAUNDRY.

1. Previous to the year under review, Departmental bed linen, rugs, towels, &c., were washed at depot stations by dhobies, with the exception of the corridor train linen, which was dealt with by a private firm, which also periodically fumigated all rugs, pillows and mattresses. This arrangement, which necessitated the storage of a large quantity of linen at the various depots, was not satisfactory and it was decided to centralise the work at Durban, where a fully equipped laundry and fumigating chamber were erected, and brought into operation on the 1st April, 1906.

2. With the introduction of this establishment at Durban it has been possible to wash and fumigate daily each complete set of bedding immediately after it has been used and also to withdraw the reserve stock from the various depots, all demands being met daily from Durban.

3. The cost of erection of the laundry and concentration of the work has been more than justified by the economical results.

4. The following statement shews the number of beds issued during the years 1905-6 :—

			Through.		Local.		Total.
1905 ...	...	...	7,080	...	4,772	...	11,852
1906 ...	...	...	5,662	...	3,900	...	9,562

XII.—CLEANING AND FUMIGATION OF CARRIAGES.

1. A marked improvement in the interior of carriages upholstered in "moquette" and "rep" has been effected by the use of the vacuum cleaning apparatus, and also a decrease in the expense of cleaning the exterior by the discontinuance of the use of oil.

2. The climatic conditions of Natal have a deteriorating effect upon carriages, and so soon as money can be spared sheds should be erected at Durban and Maritzburg for their protection.

XIII.—TIMEKEEPING OF MAIL, PASSENGER AND MIXED TRAINS.

1. The following figures show the timekeeping of mail, passenger and mixed trains for the year ending 31st December, 1906 :—

Total Number of Trains.	Number of Trains.						Percentage.					
	Right Time.	1 to 5 Minutes late.	6 to 10 Minutes late.	11 to 15 Minutes late.	16 to 20 Minutes late.	Over 20 Minutes late.	Right Time.	1 to 5 Minutes late.	6 to 10 Minutes late.	11 to 15 Minutes late.	16 to 20 Minutes late.	Over 20 Minutes late.
29,195	22,127	4,147	1,419	555	303	644	75·8	14·2	4·9	1·9	1·0	2·2

2. As in railway practice a train within 5 minutes late, is reckoned at "right time," the actual number running to booked time may be taken at 26,274, or 90 per cent. of the whole.

3. Although 90 per cent. of the passenger trains have practically run to time it may be mentioned that even better results would have been obtained, but for the fact that all the branch line extensions are limited to one or two mixed trains, which have to perform the varying work of shunting and transhipping parcels and goods traffic at roadside stations and halts, and for which it is not always practicable to make allowance in the timing of the trains.

XIV.—IMPROVED POINT AND SIGNAL ARRANGEMENTS.

DURBAN.

1. The installation of an interlocking system of points and signals at Durban in April last has worked satisfactorily, and not only ensured greater safety, but also expedited the movement of trains at the Durban Central Station.

MALVERN AND NORTHDENE.

2. In continuance of the policy decided upon but deferred owing to financial conditions, the installation of an interlocking system of signalling is being proceeded with at Malvern as part of a general scheme for all main line stations.

3. The system of signalling proposed is somewhat costly, and I think every reasonable security as well as efficiency would be obtained if a simpler and less expensive scheme is adopted.

MARITZBURG.

4. The installation of interlocking points and signals will shortly be completed and brought into use at Pietermaritzburg Station.

5. The whole of the points and signals will be operated from two signal cabins, one at the north and the other at the south end of the station yard, each containing 54 and 30 levers respectively.

XV.—UNION SWITCH AND SIGNAL COMPANY'S ELECTRIC TRAIN STAFF INSTRUMENT—MODEL No. 2.

1. It has been decided to experimentally instal two of the above mentioned instruments between South Coast Junction and Clairmont on the South Coast Line.

2. The American instrument is worked on the same principle as the Webb and Thompson's column presently in use on Natal lines, and while the cost is about the same, it is claimed that the expense of maintenance of the former is less than the latter in addition to other advantages,

XVI.—WATER SUPPLIES—CONVEYANCE OF WATER.

1. The expenditure incurred by the department in conveyance of water to meet the demands of the locomotive and other departments during the past year is shewn in the undermentioned statement :—

From.	To.	No. of Gallons conveyed.	Train Miles.	At per Train Mile.	Amount.	For use of Department.
New Hanover ...	Dalton ...	234,800	187	22·26	£ 17 7 4	Locomotive.
Colenso ...	Frere ...	2,596,800	1,039	24·90	107 17 11	"
Dannhauser ...	Glencoe Junction ...	8,000	2	24·90	0 4 8	"
Ingagane ...	"	20,000	13	24·90	1 6 1	"
Dundee ...	"	7,055,600	1,528	20·24	128 17 5	"
Ingagane ...	Hatting Spruit ...	881,600	397	24·90	41 3 8	"
Ladysmith ...	"	10,800	14	24·90	1 9 5	"
Newcastle ...	"	9,600	7	24·90	0 14 11	"
Ingogo ...	Inkwelo ...	262,800	40	24·90	4 2 3	"
Mount Prospect ...	"	156,400	19	24·90	1 18 7	"
Ingagane ...	Dannhauser ...	179,200	54	24·90	5 11 4	"
Umlalazi ...	Somkele ...	31,200	127	26·54	14 0 10	"
"	Empangeni ...	9,600	12	26·54	1 6 6	"
Durban ...	"	2,400	37	26·54	4 1 10	"
Ginginhlovu ...	"	2,400	5	26·54	0 11 1	"
Durban ...	Stanger ...	2,400	16	26·54	1 15 5	"
Chakas Kraal ...	"	24,000	28	26·54	3 1 11	"
Inchanga ...	Drummond ...	468,000	38	24·90	3 18 10	"
Donnybrook ...	Creighton ...	31,200	25	15·00	1 11 3	Loco. and Domestic.
Colenso ...	Estcourt ...	16,000	14	24·90	1 9 1	Locomotive.
Estcourt ...	Frere ...	2,400	1	24·90	0 2 1	"
Ladysmith ...	"	2,800	3	24·90	0 6 3	"
"	Waschbank ...	184,400	116	24·90	12 0 8	"
"	Walkers Hoek ...	416,000	229	13·64	13 0 4	"
"	Besters ...	22,000	16	13·64	0 18 2	"
"	Van Reenen ...	158,800	420	13·64	23 17 5	"
"	Brakwal ...	584,400	868	13·64	49 6 8	"
Harrismith ...	"	16,000	30	13·64	1 14 1	"
Aberfeldy ...	Bethlehem ...	346,800	566	13·64	32 3 4	"
Tiger River ...	"	14,800	11	13·64	0 12 6	"
Harrismith ...	Tiger River ...	12,000	19	13·64	1 1 7	"
Bethlehem ...	"	12,000	9	13·64	0 10 3	"
Aberfeldy ...	"	16,000	14	13·64	0 15 11	"
Estcourt ...	Los Kop ...	37,200	37	21·76	3 7 1	"
Frere ...	"	2,400	3	21·76	0 5 5	"
Ladysmith ...	"	2,800	6	21·76	0 10 11	"
Colenso ...	"	4,800	7	21·76	0 12 8	"
Dannhauser ...	Inkwelo ...	4,000	5	24·90	0 10 5	"
Ingagane ...	"	8,000	7	24·90	0 14 6	"
Newcastle ...	Dannhauser ...	12,000	6	24·90	0 12 5	"
"	Inkwelo ...	4,000	2	24·90	0 4 2	"
Mount Prospect ...	Charlestown ...	86,000	19	24·90	1 19 5	"
Total, Locomotive Department ...		13,952,400	5,996	...	487 16 7	Domestic & Maintenance.
Various ...		471,700	237	...	23 12 1	
Gross Total ...		14,424,100	6,233	...	511 8 8	

2. There are 12 cylindrical and 74 six-wheeled tank trucks employed in the conveyance of water, the capital cost and maintenance of which is as under :—

Description of Truck.		Capital Cost.	Maintenance.
		£ s. d.	£ s. d.
12 Cylindrical trucks ...	...	3,452 8 10	160 0 0
74 Six-Wheeled trucks ...	...	12,950 0 0	1,100 0 0
Total ...		£16,402 8 10	£1,260 0 0
Interest on Capital @ 4 % ...		...	£656 1 7
Depreciation @ 5 % ...		...	820 2 0
Cost of conveyance of water as per statement in paragraph (1) ...		...	511 8 8
Cost of maintenance ...		...	1,260 0 0
Gross cost for year 1906 ...		...	£3,247 12 3

3. It will be seen from the foregoing particulars that the position of our water supply is not a sound proposition, and it is a matter for serious consideration whether further action should not be taken with a view to improving the supply, especially at those stations where the requirements are greatest, by increasing the storage capacity of the reservoirs, &c. At those stations where the demand is not so great some means might be devised to obtain supplies locally.

XVII.—COLOURED TRAFFIC.

1. The question of accommodation for coloured passengers in separate compartments from those occupied by Europeans is beset with many difficulties, but it is receiving the constant care and attention of the staff.

2. Conductors having a knowledge of Zulu, Tamil, &c. have been appointed at Newcastle, Ladysmith, Maritzburg and Durban to assist and supply coloured passengers with information in regard to trains, baggage, fares, refreshments, &c.

3. Notices, printed in several languages, have been exhibited in the third class carriages, indicating the names and interval allowed at the stations where refreshments can be obtained, and also particulars of tariff.

XVIII.—COAL TRAFFIC.

1. The expansion of the Natal coal industry during the past five years has been abnormal, having increased from 596,047 tons in 1902 to 1,235,213 tons in 1906, or 107.23 per cent. increase.

2. 71.40 per cent. of our high-sided bogie trucks are in daily use for the conveyance of coal, of which 29.75 per cent. are used in storing reserve coal at the Point and Bluff to await arrival of steamers, &c.

3. This is a very serious demand upon our truckage, but it is anticipated that, with the use of the storage bins at the Bluff, rolling stock will be more promptly released. It will, however, be necessary to augment our rolling stock by increasing the cubic capacity of low-sided 35 ton trucks.

XIX.—EUROPEAN STAFF.

1. Subjoined statement marked "A" affords a comprehensive reflex of the position of the salaried and wages staff employed in the various grades, at the commencement and end of the year, 1906, illustrating comparatively the variations that have taken place during that period.

2. Statement "B" indicates the number of non-effective men in the various grades, shewing the amount involved in wages.

3. The demand for reduction of expenditure compatible with the maintenance of an efficient staff to cope with the requirements, has been kept steadily in view, and the result achieved is in no small measure due to the adjustment of the staff throughout the line at the various stations, &c., to meet the prevailing conditions. The surplus staff has practically met all vacancies that have arisen through resignations and other causes during the past twelve months.

Decrease in number of staff employed during the year, 119. Reduction in expenditure, £21,962 6s.

CLASSIFICATION OF STAFF.

4. Since taking over the control of the staff (September, 1906,) I had prepared a complete classification of the traffic staff of all grades. In framing the classification, I have endeavoured to fix the grades and rates of pay on a basis that would be fair to the staff and fair to the Colony under existing commercial depression. Its full effect will not be apparent, at once, but I am persuaded it will tend to greater efficiency and economy in working of these railways.

ESTABLISHMENT.

5. In addition to the classification of the staff a fixed establishment has been appointed for each district and station which will simplify the administration of the staff.

GUARDS STAFF "BOOKING OFF" SYSTEM.

6. During the year the sum of £41,693 has been expended in respect of guards wages, while £8,125 6s. 1d. represents the overtime earned and from that amount a sum of £3,999 15s. 10d. has been saved by the "Booking Off" system.

7. The "Booking Off" System has many commendable features, and permits of each man receiving not less than his monthly wage in addition to an average amount of overtime. The balance of overtime being set aside for the employment of a larger staff than is actually necessary, at practically no extra expense to the Administration. In this way, many capable railway men with their families have, and are being, retained—which owing to the depression in traffic would have migrated to other Colonies—thus placing the Department in command of experienced men ready to meet any expansion of traffic.

TRAINING AND EXAMINATION OF TRAFFIC STAFF.

8. An experience of station duties is regarded as the unit of efficiency, and accordingly the stations are considered the best "School" in which to train youths entering the service.

Promotions and appointments are governed by the results of periodical examinations which engender a wholesome influence and stimulates applicants to study with the object of becoming efficient "all round" rather than "speciality" men.

This has the advantage of bringing to the surface, members of the staff to graduate for better positions in the Administration.

The management of railways is a profession, an art which needs special training and wide experience; it is therefore absolutely necessary that care should be given to the training of the junior members of the service.

Other grades of the service such as Signaller, Staff Custodians, etc., undergo a probation of practical working under capable Station Masters.

STAFFING OF NEW STATIONS.

9. During the year, five new stations were established for general traffic purposes in conjunction with the completion and opening of the undernoted extensions :—

Date of Opening.	Section.	Extent.	Stations.
16th May, 1906 ...	Natal-Cape Extension, Donnybrook to Creighton	15½ Miles	Donnybrook & Creighton
1st June, 1906 ...	Upper Tugela Extension, Ennersdale to Los Kop	13½ Miles	Los Kop.
21st June, 1906 ...	O.R.C. Extension, Bethlehem to Kroonstad ...	89 Miles	Lindley Road & Lovat.

In addition there were three halts converted into fully equipped stations as follows :—

Date of Opening.	Sections.	Locality.	Station.
1st March, 1906 ...	Natal-Zululand Railway	85½ Miles ...	Amatikulu.
16th July, 1906 ...	Richmond Branch Line	3½ Miles ...	Nels Rust.
3rd December, 1906	O.R.C. Line	93½ Miles ...	Revelstoke.

A temporary station was opened on the Weenen Narrow Gauge Railway at a point 18 miles from Estcourt on the 4th October, 1906.

SUPPLY OF UNIFORM CLOTHING.

10. The supply of uniform to the Staff under the existing contract is not satisfactory owing to the inferior quality of the material and the delay of the Contractors in meeting our requirements.

GENERAL.

11. The general conditions in connection with the staff in regard to pay, privileges, and leave, etc., are of the most liberal character. The rates of pay compare favourably with the other South African Railways.

XX.—COLOURED LABOUR.

1. The cost of coloured labour during the past twelve months has been greatly reduced without impairing efficiency, by the substitution, where practicable, of Indentured for Free Indians and Natives, as well as the re-engagement of the latter at a reduced rate of pay.

2. A comparison between the month of December, 1905 and 1906 is given below, which shews a reduction of 421 labourers at an average monthly saving of £819 17s. 11d. It is hoped a still further reduction will be made under this head during the current year.

	Indentured Indians.	Free Indians.	Natives.	
1905	627	764	982	£ s. d. 4,621 7 9
1906	661	680	611	3,801 9 10
Decrease ...	...	84	371	819 17 11
Increase ...	34	...	...	...

D. B. DOWNIE,
Traffic Superintendent.

ANNEXURE A.]

Statement showing the Variations in the Effective Strength in the Traffic Department during the Year 1906.

Grade.	Effective on 1st Jany., 1906.	Effective on 31st Dec., 1906.	Remarks.	
			Increase.	Decrease.
Administrative Staff.				
Traffic Superintendent	1	1	...	...
Chief Clerks	2	2	...	...
Staff Clerk ... ..	...	1	1	...
Clerks	37	38	1	...
District Superintendents	4	4	...	...
District Superintendent's Clerks ...	12	17	5	...
*Executive Staff.				
Apprentices	129	117	...	12
Barracks' Caretakers	2	1	...	1
Booking Agent	1	1	...	...
Booking Clerks at Special Stations	13	13	...	...
Checkers	135	101	...	34
Cloak Room Clerks	1	1	...	...
Cranemen	1	1	...	...
Carriage Cleaning Foremen	3	2	...	1
Chief Traffic Inspector	1	1	...	...
Conductors	3	3	...	...
Chief Yard Foremen	2	2	...	...
Chief and Foremen Checkers	17	17	...	...
Crossing Keepers ... ..	...	4	4	...
Foreman Porters	2	2	...	...
Goods Agents	5	4	...	1
Goods Clerks	133	127	...	6
Guards... ..	206	209	3	...
Laundrymen	1	2	1	...
Luggage Weighers	4	4	...	...
Ladies' Attendants	3	3	...	...
Learner Night Clerks	5	6	1	...
Lampman	1	1	...	...
Number Takers	13	2	...	11
Night Clerks	88	68	...	20
Outside Station Master	1	1	...	...
Porters... ..	35	34	...	1
Porter Shunter ... ..	...	1	1	...
Parcels Agent	1	1	...	...
Parcels Clerks	45	36	...	9
Pilotmen	4	4	...	...
Passenger Agents	2	2	...	...
Relieving Station Masters	21	21	...	...
Relieving Night Clerks	16	16	...	...
Relief Clerks	5	6	1	...
Relief Signalmen	6	6	...	...
Station Masters	132	140	8	...
Staff Custodians	59	64	5	...
Shunters	92	81	...	11
Station Foremen	10	10	...	...
Station Clerks	166	124	...	42
Station Clerks at Special Stations	10	10	...	...
Signalmen	28	29	1	...
Traffic Inspectors	6	6	...	...
Ticket Inspectors	2	2	...	...
Ticket Collectors	19	18	...	1
Trainmen	2	...	...	2
Telegraphists	22	24	2	...
Time Keepers	2	2	...	...
Weighers	1	...	...	1
Yard Foremen	15	15	...	...
	1,527	1,408	34	153

* Arranged Alphabetically.

	No.	£	s.	d.
Non-Effectives	210	30,583	14	0
Employed ..	91	8,621	8	0
Total Decrease	119	£21,962	6	0

Length of Sections	Sections	Locals.				Number of Trains Composed in accordance with loads of the period—required to haul 500 tons gross per diem over the different Sections, and Trains Mileage involved in each run										Remarks	
		Maximum Loads.				Number of Trains.				Trains Mileage							
		1901.		1906.		1901.		1906.		1901.		1906.		Increase or Decrease against 1906			
		Red Engines.	Heads Engine.	Engines and loaded by the Road.	Increase in load 1906 over 1901.	Future possible increase in tonnage of the road, Lakeview-Hilton Road and Cape Mills-Harrison (Deviation)	Red Engines.	Heads Engine.	Engines and loaded by the Road.	Decrease in number of Trains required.	Future possible reduction in the number of Trains required upon the road, Lakeview-Hilton Road and Cape Mills-Harrison (Deviation)	Miles per diem.	Miles per diem.	Increase or Decrease against 1906.	Miles per diem.		
		From.	To.	Total 1901.	Total 1906.	Total.	Trains per diem.	Trains per diem.	Trains per diem.	Trains per diem.	Trains per diem.	Miles per diem.	Miles per diem.	Miles per diem.	Miles per diem.		
174	431-434	Charlestown ...	Ingogo ...	360	360	360	8	8	8	8	324	324	324	324			
241		Ingogo ...	Ingogane ...	549	549	549	9	9	9	9	458	458	458	458			
131		Ingogane ...	Dunhaabauer ...	405	405	405	10	10	10	10	273	273	273	273			
151		Dunhaabauer ...	Glenca Junction ...	560	560	560	8	8	8	8	236	236	236	236			
174		Glenca Junction ...	Wessels Nek ...	549	549	549	9	9	9	9	315	315	315	315			
174		Wessels Nek ...	Ladysmith ...	560	560	560	8	8	8	8	360	360	360	360			
431-434		Ladysmith ...	Estcourt ...	325	325	325	14	14	14	14	1,248	1,236	1,174 Inc.	1,059	170 1/2		
151		Estcourt ...	Highlands ...	300	216	392	*192	23	21	12	11	713	372	541 Dec.	372		
51		Highlands ...	Moel River ...	560	607	607	27	8	8	8	8	84	84	84	84		
51		Moel River ...	Nottingham Road ...	547	547	547	360	13	13	13	12	357	357	357	350	27 1/2	
161		Nottingham Road ...	Dunig Road ...	358	350	350	350	13	12	12	12	429	396	33	36		
131		Dunig Road ...	Hilton Road ...	563	563	563	350	18	18	18	2	408	416	62	312	104	
131		Hilton Road ...	Martinsburg ...	421	421	421	421	11	11	11	11	273	273	273	273		
151		Martinsburg ...	Meridhurst ...	520	520	520	520	11	11	11	11	90	744	64	744		
41		Meridhurst ...	Fox Hill ...	230	245	442	*212	20	19	11	9	190	104	86	104		
51		Fox Hill ...	Thornville Junction ...	255	255	442	*187	16	16	11	5	120	80	30	30		
21		Thornville Junction ...	Cape Ridge ...	390	442	442	12	12	12	10	136	30	30	30			
51		Cape Ridge ...	Inchanga ...	347	368	368	21	19	13	10	12	149	149	149	149		
31		Inchanga ...	Drummond ...	200	268	268	168	25	25	13	10	143	124	64	75	11 1/2	
21		Drummond ...	Alverstone ...	200	220	368	*168	25	21	13	10	12	109	61	47	57	42
11		Alverstone ...	Bethas Hill ...	300	368	368	350	23	23	13	10	12	80	45	35	42	3 1/2
31		Bethas Hill ...	Hill Crest ...	255	425	425	168	16	11	11	5	120	60	37	80		
121		Hill Crest ...	Pietstown ...	390	425	425	168	12	12	11	6	408	412	1	412		
121		Pietstown ...	South Coast Junction ...	360	485	95		12	10	10	2	303	228	60	228		
41		South Coast Junction ...	Durban ...	380	480			8	8			74	75		75		
												Total	7,743	6,896	854	6,552	356
												Banking Engine Trains Mileage		3131		3101	
												Empty "		3124			
												Gross Total ...	7,743	7,515	230	7,174	350 1/2

APPENDIX E.]

REPORT OF THE STORES SUPERINTENDENT FOR THE YEAR ENDED 31ST DECEMBER, 1906.

GENERAL MANAGER,—

In accordance with the usual custom I have the honour to submit the following statements and report on the working operations of this Department during the past year :—

1. SUMMARY OF ACCOUNTS OF THE GENERAL STORES DEPARTMENT FOR THE YEAR 1906.

	£	s.	d.	£	s.	d.
To Balance of Stocks on hand at 1st January, 1906	...			188,549	9	3
" Stores and Material received from Great Britain through the Agent-General	184,135	2	8			
" Stores imported from America ...	2,217	3	2			
" Stores imported from India ...	39,441	4	8			
" Stores purchased locally ...	199,886	12	11			
" Purchases from other Departments ...	20,239	2	5			
" Surplus Stock taken over from the Loco. Dept.	6,839	11	2	452,758	17	0
				£641,308	6	3
By Material and Stores issued during the year—						
Locomotive ...	248,815	7	2			
Maintenance ...	70,562	15	1			
Traffic ...	40,709	17	4			
Construction ...	14,210	3	6			
General Charges ...	3,109	5	1			
General Stores ...	2,333	17	5			
Joint Stock ...	196	14	8			
Harbour ...	36,633	13	11			
Public Works ...	2,592	4	9			
Cold Stores ...	1,118	14	3			
Sundry issues and sales ...	4,711	19	5			
Claims and Rebates ...	796	13	7			
Transfers ...	35	4	2			
				425,826	10	4
" Balance of Stocks on hand at 31st Dec., 1906...				215,481	15	11
				£641,308	6	3

2. Although it will be seen from the foregoing statements that the total purchases made during the year 1906 are below the amount expended in 1905, it will no doubt be of some interest to learn that there has been no shortfall in the expenditure made in the Colony, but on the contrary our local purchases have increased by £15,610 over the figures spent in 1905. The Indian imports shew a rise of £6,072 over the sum spent on stores from the same quarter in the previous year, which increase is explained by the enhanced price of rice and oil referred to hereafter.

3. The stock on hand at the close of the year, it will be observed, was much higher than that with which the year's work was started; the reason being that during December we received several very heavy shipments of rails and other permanent way material from Home, which, although a large portion of the material was issued for laying into the road shortly after arrival, the book transfers did not take effect until the opening of the new year.

4. The description of the principal purchases covered by the foregoing statement is shewn hereunder :—

	£	s.	d.
Girders and Bridgework	2,389	15	3
Sleepers and Crossing Timbers	12,790	14	7
Steel Rails (also Points and Crossings)	30,382	4	3
Rail Chairs and P.W. Fastenings	26,778	1	6
Water Pipes and Fittings	2,241	2	6
Water Tanks	482	15	2
Machinery	2,955	14	9
Various Locomotive Fittings	9,654	9	6
Boiler Tubes	15,734	10	3
Carriage and Wagon Fittings and Trimmings	23,675	9	11
Bogies and Parts	4,022	17	2
Vacuum Brake Gear	2,561	0	5
Electrical Apparatus and Appliances	8,642	18	5
Timber	10,150	1	4
Bricks	202	1	2
Cement	10,735	13	7
Galvanised Iron	3,181	7	7
Guttering, &c.	502	9	5
Fencing Material	304	9	4
Teak Logs	7,456	3	2
Firebricks	802	2	0
Ironmongery	3,155	13	6
Iron and Steel	10,462	16	8
Brass, Copper, Tin, Lead and Zinc, &c.	11,970	19	3
Oils of various descriptions	29,320	3	7
Turpentine	478	6	5
Paints and Varnishes	4,094	14	6
Train Staff Instruments	102	12	4
Wagon Covers, Canvas, Lashings and Dressing	7,962	19	6
Rope	1,074	18	2
Tents	1,320	12	7
Uniforms and Accessories	2,241	11	7
Stationery	13,249	18	5
Lampware	452	2	4
Glassware (Tumblers and Water Bottles)	163	10	5
Glass, Sheet	1,552	15	8
Safes	107	18	7
Waste, Tallow and Sponge Cloths, &c.	3,924	19	9
Tools	3,120	7	6
Hose	1,274	12	4
Drugs and Chemicals	490	0	8
Ammonia	250	11	7
Disinfectants and Poisons	1,451	14	10
Acetylene and Carbide	268	13	5
Brushware	568	15	11
Coal	101,065	9	7
Coke	2,882	16	7
Firewood	1,299	17	2
Rations for Indians and Natives	28,181	10	5
Dynamite, Fuses, Detonators and Gelignite	511	4	11
Extinctors Fire and Charges	548	17	8
Antimony	328	19	8
Barrows, Wheel	334	18	7
Belting	150	9	9
Blinds	139	8	0
Fireclay	213	17	2
Enamelware	433	18	1
Cupboards	108	12	0
Chairs	109	10	11
Crucibles	176	9	8
Grease, Antifriction	130	0	7
Gauges, Hydraulic Pressure, &c.	183	17	8
Hydrants	187	0	9
Surface Boxes	147	0	1
Lime	312	11	5
Metal Polish	245	2	2
Plumbago	384	16	1

5. Home Invoices.—The cost of the imports through the Agent-General is made up as follows :—

Invoices	158,708	11	8
Freight and Agency	15,272	2	2
Insurance	952	9	9
Inspection and Cablegrams	1,034	0	6
Other charges, defrayed in Natal	8,167	18	7
	£184,135	2	8

6. **Coal.**—This, the principle item of expenditure exceeds the total of 1905 by 33,713 tons. The steam coal taken for locomotives, &c., was 19,239 tons more than in 1905; the coal supplied to H.M. Navy was also greater by 446 tons, and 786 tons of Household Coal was issued also over and above the quantity of the previous year. Coal for the Harbour Department comes within this statement now for the first time.

Coal for the first half of the year was taken under contracts which commenced with September, 1905; in July, 1906, new contracts were opened to run for a period of two years at prices which are generally much above what we had to pay under the preceding contracts. The following statement shews the sources of supply and the tonnage of coal purchased in 1906:—

Steam Coal (Railway consumption only):—			Tons cwt.		Tons cwt.	
Central Collieries	...	...	65	18		
Durban Navigation	...	...	7,881	7		
Dundee Coal Co.	...	...	20,002	11		
Elandslaagte Colliery...	...	...	20,930	5		
Glencoe Natal Colliery	...	...	12,763	6		
Ingogo Colliery (surplus)	...	...	4	12		
Natal Navigation	...	...	19,245	17		
Natal Cambrian	...	...	17,395	13		
Natal Steam Coal Co.	...	...	3,943	17		
Newcastle Colliery Co.	...	...	50,647	11		
Ramsay Collieries	...	...	16,066	14		
St. George's Coal and Estate Co.	...	...	21,750	19		
South African Collieries	...	...	1,048	1		
Talana Collieries	...	...	775	12		
West Lennoxton Collieries	...	...	28,193	6		
Zululand Colliery	...	...	728	14		
					221,444	3
Steam Coal (Harbour Department—6 months):—						
Durban Navigation	...	...	6,946	18		
Dundee Coal Co.	...	...	2,076	12		
Elandslaagte Colliery...	...	...	1,819	9		
Glencoe Natal Colliery	...	...	93	3		
Natal Navigation	...	...	22	12		
Natal Cambrian	...	...	284	5		
Natal Steam Coal Co.	...	...	67	17		
Ramsay Collieries	...	...	1,068	1		
Zululand Colliery	...	...	862	7		
					13,241	4
Steam Coal supplied to H.M. Navy:—						
Durban Navigation	...	...	48	17		
Natal Navigation	...	...	153	5		
St. George's Coal and Estate Co.	...	...	417	5		
					619	7
Household Coal:—						
Durban Navigation	...	...	1,693	5		
Natal Steam Coal Co.	...	...	3,125	7		
Newcastle Colliery	...	...	2,044	19		
Talana Collieries	...	...	515	14		
					7,379	5
					242,683	19

7. **Permanent Way Material.**—The outlay in stock of this description amounted to close upon double the sum similarly spent in the previous year, and the prices for Rails and Fastenings were also higher. All sleepers purchased during the year were hardwoods, and were obtained by local contracts at satisfactory prices. With sleeper contracts the tendency appears to be to quote for earlier deliveries than can usually be given; in some instances delays are too protracted to treat lightly, which indicates the necessity of enforcing the penalty clause. The Department expects delivery on all occasions strictly in conformity with the terms of contract, and if our action on this point is in any way relaxed, I fear that some day we shall find ourselves placed at serious inconvenience.

8. **Metals.**—Owing to the extremely high state of the metal market throughout the year, all brass and copper goods had to be bought at high prices. Tin also, of which we are large consumers, ran very high all through the year.

9. **Oils.**—It will be noticed that our oils cost us very considerably more than in 1905. The principal item in this account is 156,519 gallons of castor, which is most generally used for lubricating wagon and carriage stock, and which during the year cost us on an average 25 per cent. more than in the year previous. Other lubricating oils cost approximately the same as in 1905, but linseed oils were dearer and more of these latter were required. More paraffin was wanted also than formerly—69,764 gallons were purchased under contract prices which were considered very favourable to us.

10. **Indian and Native Rations.**—The expenditure on rations has been very heavy, as compared with former years, which is mainly owing to the great advances in the cost of rice. To meet these continual rises of the market it was decided to put indentured Indians on mixed rations of rice and meal from the beginning of the year, but the arrangement did not result in so great a saving as was anticipated. Meal was in greater demand, and this also had to be bought at higher prices than in the previous year, the most noticeable period being between May and August, when prices for up country contracts ranged to 50 per cent. above what we had to pay in the same period of 1905.

Meal supplies are obtained by quarterly contracts, but rice is purchased at current market rates. A great deal of comment has been passed from time to time on our method of obtaining rice, and many statements have been put before you and your predecessor in justification of the existing rule. I am quite satisfied that we buy as cheaply as we could possibly expect under any contract system, and apart from the question of price, the present arrangement has advantages which we could not depend upon under other circumstances.

11. **Uniforms.**—The clothing contract which started in November, 1905, I regret to say has not so far proved the success which was hoped for. In the first issue the goods did not compare favourably with our regular standard, and the staff was caused a great deal of inconvenience by reason of the innumerable misfits. In their eagerness to remedy the faults exhibited in the first issue an undue length of time was occupied by the contractors in executing the next order, and again discontent spread throughout the uniformed staff on account of the long delays in receiving their equipment of clothing. We have a large range of garments of various designs and materials, and I have no doubt that a contract of this description requires a great deal of skill and very careful handling.

The expenditure on clothing during the year appears to be remarkably low as compared with any year in the past, but this is explained by the fact of much clothing arriving after the close of the year which should have reached us earlier.

12. **Stationery.**—This is an item in which expenditure has again fallen below the preceding year as seen in the following :—

Issues (all Departments) 1905	...	...	...	£15,664 11 1
" " 1906	...	...	...	£14,601 17 1

In anticipation of issuing tender forms for printing in 1907, it was arranged as customary to endeavour to effect a saving by reducing the variety of papers. After examination of an extensive range a proposed set of standard papers was submitted to a meeting of representatives of departments for consideration. By selection of the cheapest papers suitable for the various forms used there should be a decided saving.

The importation of writing inks was discontinued during the year, and it is hoped that the adoption of inks manufactured locally will prove satisfactory and economical.

13. **Local Purchases.**—As already mentioned, the amount of money spent locally in stores exceeded the amount expended in 1905. This is partly owing to the extra calls made upon us which could not be met from our own stocks, and partly owing to the desire to foster colonial trade. It has been laid down by Government that a preference is to be given to goods of local production when the same are placed in competition with goods from oversea, but if in making a comparison of prices the preference is to be based on the figure which our stocks ordinarily cost us to import through the Agent-General, I am afraid the preference will need to be a large one to turn the tables often in favour of local enterprise.

Apart from goods of South African manufacture there must of necessity be always a great deal of local buying to meet demands which cannot be supplied from stock.

14. **Tonnage.**—The tonnage of goods imported during the year was as under :—

From Great Britain	...	...	...	...	Tons. 21,667
" Australia	...	...	...	...	4,997
" India	...	...	...	...	2,024
" Burmah	...	...	...	...	440
" Java	...	...	...	...	967
" America	...	...	...	...	100
					<hr/> 30,195 <hr/>

15. **Construction.**—Additional to the stores mentioned in the early part of this report, the following goods were received at the wharves and forwarded to destination on behalf of the Construction Department. The tonnage of these goods is included in the figures given in the preceding tonnage statement :—

		£	s.	d.
Permanent Way Material	...	14,646	15	0
Bridgework	...	13,172	2	3
Creosoted Timbers and Sleepers	...	4,779	19	1
Hardwood Sleepers...	...	14,197	6	10
Rolling Stock	...	10,489	13	8
Fencing	...	6,694	18	9
Cement	...	267	17	2
Tents and Poles	...	133	0	0
Stationery	...	78	2	6
Sundries...	...	79	8	0
		<u>£64,539</u>	<u>3</u>	<u>3</u>

16. **Other Departments.**—Since August all Government consignments arriving from oversea have been cleared and dealt with by us as Forwarding Agents. Up to the end of the year the quantity of stores handled in this manner for sundry other departments of the Government Service was 366 tons, the main portion of which consisted of small packages of a miscellaneous nature. We still continue to act as the local Port Agents for the C.S.A.R.

17. **Insurance.**—The premiums paid in 1906 for marine insurance amounted to £952 9s. 9d., and 18 claims were lodged of the total value of £59 6s. 2d.

Early in the year the Government established a fund whereby it accepted all shipping risks on its own cargoes to the extent of £5,000 in any one vessel. I think this movement is a correct one, and I hope that as time goes on the wisdom of it will be proved.

Since the opening of this insurance fund its operations have been extended to cover risks on our warehoused stocks of stores also.

18. **Home Indents.**—The number of Indents forwarded to the Agent-General was 108, of the total value of £195,942 10s. 8d.

19. **Sail Shop.**—In 1906 the number of wagon covers repaired was 8,975, and in addition to this 317 new sheets were dressed and put into circulation.

It was with regret that I had this year to report for the first time a case of fire. On two occasions in December fire broke out in our sail loft, but fortunately in both instances, owing to the action of the sprinkler installation and the prompt arrival of the Fire Brigade, the loss was not so serious as it might otherwise have been : the total damage being under £500. Up to the present no definite cause can be assigned to the origin of these fires, although the work is generally believed to be that of an incendiary.

The sail loft was referred to in my report of 1905 as being in dangerous proximity to our other buildings, and I am hoping that before the time arrives for reviewing the work of another year this workshop will be removed to a more suitable site. As it is the accommodation is insufficient to cope with the large number of repairs and other work, and we have had to find relief by renting buildings elsewhere.

20. **Sales of Scrap.**—The sum realised by sales of scrap metal, rubber, packing cases, &c., during the year amounted to a total of £7,394 1s. 5d.

21. **Capital Account.**—At the close of last financial year (30th June, 1906) a sum of £16,000 had to be surrendered to the Treasury, and this has greatly curtailed the spending powers of the Department and our capacity for carrying stocks to meet emergencies, although the increased types of rolling stock and permanent way material make it essential that a larger capital should be maintained, which I trust Government will recognise by voting an amount to be set aside as an open capital account.

22. **Accommodation.**—It is with pleasure that I have this time to record the completion of the new General Store referred to by me a year ago. The building, although only half as large as was originally designed, has given relief which was long needed. In the main structure it is very satisfactory, but unfortunately those labour-saving appliances—the electric lift and crane—have not so far been a success. They are, however, receiving attention, and will doubtless prove ultimately a great saving in the handling of goods.

23. **Amalgamation of Stores.**—A Commission was appointed in the month of April, the outcome of which was that the Government decided to amalgamate the Stores of the Railway, Harbour, and Public Works Departments, and that all should be controlled by the General Stores of the Railway. The Harbour Stores were taken over from July 1st, and the system of accounting was entirely remodelled ; the same method and rules being instituted as are in vogue in our District Stores—the Value Stock Book system being adopted. Stock was taken and the total valuation was verified with the books of the Harbour Department, and on the basis of these

figures the new system has been introduced. The stocks, I should mention, were valued at their original cost, and comprise many stores which have deteriorated, and others which have become obsolete. No instructions have yet reached me from the Government as to the actual figure at which these stores are to be taken over, and consequently they have not been included in the stock balance of the Department at the end of the year.

A saving has been effected in administration, and I trust that the combination will ultimately help to standardise to a considerable extent the large variety of stores required for Government purposes, and maintain a high standard of quality. The combination will enable larger indents than formerly to be made up, which will secure for us more favourable prices, and the change will also prevent any chance of competition by officials in local buying.

At the latter part of the year it was also decided to supply stores of a general character to the Police and Gaols, and I trust the principle may prove satisfactory to those concerned, and shew economy in expenditure.

To this amalgamation scheme can be attributed much of the increase in various items of expenditure during the last six months of the year, and more especially the increase in our local buying.

E. B. KIRKMAN,
Stores Superintendent.

APPENDIX F.]

REPORT OF SUPERINTENDENT OF RAILWAY POLICE.

SUMMARY OF APPREHENSIONS FOR THE YEAR 1906.

OFFENCE.	N.G.R. Employees.				Total.	Not N.G.R. Employees.				Total	Grand Total.
	Euro-peans.	In-dians.	Nat-ives.	Others		Euro-peans.	In-dians.	Nat-ives.	Others		
Abduction	1	...	...	...	1	1
Absent from Roll Call	43	...	...	43	...	...	...	...	...	43
Absent without leave	41	2	...	43	...	3	1	...	4	47
Adultery	2	...	...	2	...	2	...	...	2	4
Attempted Suicide	1	...	1	1
Assault	1	21	16	...	38	...	9	16	...	25	63
Assault with intent	1	1	...	2	...	...	...	...	...	2
Borough Bye Laws	1	..	1	2	4	4
Breach of the peace	1	74	11	...	86	7	17	16	...	40	126
Carrying lethal weapons	1	...	1	...	...	7	...	7	8
Cattle Stealing	1	1	2	...	4	4
Committing a nuisance	37	13	1	51	2	14	16	...	32	83
Concealment of Birth	1	...	...	1	...	...	2	...	2	3
Cruelty to animals	2	...	2	2
Damaging N.G.R. property	1	...	...	1	4	2	4	...	10	11
Desertion	1	5	...	6	...	3	6	...	9	15
Deserting Wife and Family...	1	...	...	...	1	1
Disobedience	77	...	...	77	...	...	3	...	3	80
Drunkenness	7	58	17	1	83	177	73	86	21	357	440
Endangering life	1	4	...	...	5	19	12	21	2	54	59
Evasion of Hut Tax	1	...	1	1
False Pass	1	...	...	1	...	1	4	...	5	6
Falsely declaring goods	1	...	...	1	1
Fisheries Act	1	...	...	1	...	...	...	...	...	1
Forgery	2	...	...	2	...	...	...	...	...	2
Gambling	15	...	...	15	..	3	2	...	5	20
Gaol Regulations	2	...	...	2	2
Grass Burning	1	...	1	1
Housebreaking	4	...	...	4	...	3	11	...	14	18
Identification Pass Act	5	...	5	1	4	1	...	6	11
Illegal possession of liquor	2	...	...	2	...	3	2	...	5	7
Illegal use of Railway Bar	3	...	...	...	3	1	...	...	...	1	4
Insolence	3	1	...	4	...	...	1	...	1	5
Indecency	1	1	2	1	5	5
Carried forward	13	389	72	2	476	216	154	209	26	605	1081

SUMMARY OF APPREHENSIONS FOR THE YEAR 1906--(continued).

OFFENCE.				N.G.R. Employees.				Total.	Not N.G.R. Employees.				Total	Grand Total.
				Euro-peans.	In-dians.	Nat-ives.	Others		Euro-peans.	In-dians.	Nat-ives.	Others		
Brought forward	...	...	...	13	389	72	...	476	216	154	209	26	605	1081
Lunacy	...	...	...	...	1	...	...	1	...	2	2	...	4	5
Masters and Servants Act	...	...	...	...	...	2	...	2	...	...	2	...	2	4
Militia Act	...	...	...	...	...	...	...	...	1	...	...	...	1	1
Murder	...	...	...	...	1	...	...	1	...	...	...	...	...	1
Neglect of duty	...	...	...	...	17	2	...	19	...	1	2	...	3	22
No License	...	...	...	...	1	...	...	1	...	...	...	...	...	1
No Ticket. (Defrauding N.G.R.)	...	...	...	...	1	...	...	1	49	19	33	...	101	102
No Pass	...	...	...	...	48	...	...	48	...	78	2	...	80	128
Obstructing Railway Officials	...	...	...	...	...	...	...	...	...	...	1	...	1	1
Pass Law	...	...	...	...	...	5	...	5	...	...	1	1	2	7
Perjury	...	...	...	...	1	...	...	1	...	...	2	...	2	3
Placing Obstruction on Line	...	...	...	...	...	...	...	...	2	1	13	...	16	16
Police Act	...	...	...	1	4	1	...	6	3	6	15	1	25	31
Poll Tax	...	...	...	3	15	17	...	35	...	1	3	...	4	39
Prohibited Immigrant	...	...	...	...	...	...	...	...	11	...	...	1	12	12
Riding in an unauthorised Vehicle	...	...	...	...	...	...	...	...	4	...	...	...	4	4
Sedition	...	...	...	...	...	1	...	1	...	...	1	...	1	2
Selling Native Beer	...	...	...	...	...	...	...	...	...	...	2	...	2	2
Smoking in prohibited places	...	...	...	...	...	...	...	...	...	...	...	2	2	2
Supplying liquor to Natives	...	...	...	...	...	...	...	...	1	...	...	...	1	1
Theft	...	...	...	8	86	34	1	129	26	46	39	5	116	245
Throwing missiles at trains	...	...	...	...	...	...	...	...	...	2	10	...	12	12
Traffic regulations	...	...	...	...	...	...	...	...	...	...	150	...	150	150
Trespass	...	...	...	...	6	...	...	6	71	269	327	37	704	710
Using threatening language	...	...	...	...	1	...	...	1	...	1	3	...	4	5
Vagrancy	...	...	...	...	...	...	...	...	2	...	3	...	5	5
Wandering from Kraal	...	...	...	...	...	...	...	...	...	...	14	...	14	14
Witchcraft	...	...	...	...	...	...	...	...	...	...	1	...	1	1
Total	...	...	...	25	571	134	3	733	386	580	835	73	1874	2607

SUMMARY OF APPREHENSIONS FOR THE YEAR 1906—(continued).

Number of Convictions ...	...	...	1,504
" " Bails Forfeited...	...	...	920
" " Charges withdrawn	...	...	62
" " " Discharged	...	...	106
" " " Pending	...	...	15
Total	...	...	<u>2,607</u>
Number of Arrests during 1906	...	...	2,607
" " " 1905	...	...	3,182
			— 575 Decrease.*
Total amount of Fines paid, 1906	...	£280 : 5 : 6	
" " " " 1905	...	476 : 8 : 6	
			— £196 : 3 : 0 Decrease.
Total amount of Bails Forfeited, 1906	...	£501 : 17 : 6	
" " " " 1905	...	602 : 8 : 0	
			— £100 : 10 : 6 Decrease.

SUMMARY OF DUTIES, RAILWAY POLICE, DURING THE YEAR 1906.

SECTION.						Arrests.	Patrols.	Special Duties.	LICENSES INSPECTED.		
									Dogs.	Others.	Poll Tax.
No. 1	...	...	...	...	...	1,022	268	221	...	8	3,137
" 2	...	...	...	...	...	665	402	478	...	3	380
" 3	...	...	...	...	...	518	648	173	...	4	—
" 4	...	...	...	...	...	402	173	196	5	4	—
Total	...	...	...	...	...	2,607	1,491	1,068	5	19	3,517

TOTAL STRENGTH OF RAILWAY POLICE, AS AT 31st DECEMBER, 1906.

SECTION.					EUROPEANS.			INDIANS.		NATIVES.		Total.
					Officers.	Sergt.	Const.	Sergt.	Const.	Sergt.	Const.	
Superintendent's Office and Detectives...					1	1	2	...	1	...	5	10
No. 1	...	...	...	...	...	1	6	...	2	...	22	31
" 2	...	...	...	...	...	1	3	...	...	...	14	18
" 3	...	...	...	...	...	1	2	...	...	...	9	12
" 4	...	...	...	...	...	1	...	...	...	...	8	9
Total	...	...	...	...	1	5	13	...	3	...	58	80

E. J. SHERRELL, Sub-Inspector, N.P.,
Superintendent, Railway Police.

STATISTICAL APPENDICES.

Miscellaneous Revenue.	GOODS TRAFFIC (As per Analysis below).		Total Revenue.	Train Miles Run.	Receipts per Train Mile.
Cents, Mails, &c.	Tons.	Amount.			
£		£	£		d.
4,012	157,338	197,491	257,877	728,266	84·98
4,243	194,316	277,637	347,982	938,444	88·99
5,610	267,104	432,525	535,261	1,320,160	97·30
6,921	301,753	479,344	606,713	1,629,544	89·35
8,374	380,157	438,174	572,296	1,527,483	89·91
9,243	412,728	398,045	532,788	1,488,778	85·88
8,777	304,582	296,826	416,615	1,192,491	83·84
9,289	336,553	335,193	465,872	1,196,824	93·42
9,498	393,379	366,313	526,494	1,322,664	95·53
9,236	628,799	896,960	1,136,214	2,277,106	119·75
9,544	686,030	813,501	1,051,359	2,424,152	104·08
10,761	914,507	735,175	986,416	2,762,429	85·70
11,494	976,987	665,325	940,100	2,750,955	82·01
28,735	1,092,030	878,505	1,242,281	3,119,409	95·57
29,482	1,500,336	1,194,888	1,650,355	4,348,609	91·08
54,966	1,744,773	1,430,155	2,046,116	4,450,557	110·34
58,477	2,052,082	1,972,599	2,561,551	4,851,600	126·72
59,188	1,919,959	1,379,517	1,933,934	4,292,023	108·14
75,804	2,276,674	1,459,366	2,034,937	4,483,158	108·94
70,643	2,383,152	1,300,081	1,836,916	4,628,953	95·24

Skins, &c.	Mealies, Potatoes, and Colonial Produce.		Sugar.		Sugar Cane.		Gross Total.
Amount.	Tons.	Amount.	Tons.	Amount.	Tons.	Amount.	
£		£		£		£	£
1,718	13,755	7,587	14,308	10,594	4,451	183	197,491
2,064	12,338	6,361	14,784	11,871	3,261	125	277,637
2,109	10,420	5,956	16,331	10,915	6,078	300	432,525
2,384	9,108	5,673	12,100	11,414	3,087	207	479,344
2,285	17,917	8,180	13,194	15,585	6,378	286	438,174
2,435	15,590	8,740	22,838	20,727	9,031	377	398,045
2,647	24,169	11,285	21,901	23,131	9,228	378	296,826
2,293	32,058	15,724	26,195	27,161	9,689	419	335,193
2,312	45,767	18,635	26,937	17,715	11,115	384	366,313
1,146	102,814	117,849	22,652	14,197	6,815	325	896,959
1,356	86,628	86,595	21,653	14,021	7,687	306	813,501
2,553	102,542	61,191	40,214	18,896	20,950	765	735,175
636	98,197	45,430	38,946	14,462	21,006	1,219	665,325
694	88,641	40,032	22,875	5,669	25,462	1,279	878,505
892	126,089	61,733	23,295	6,859	31,563	1,413	1,194,888
597	180,808	102,151	30,782	7,782	38,417	638	1,430,155
415	100,141	55,867	40,435	17,551	66,427	1,285	1,972,599
306	127,183	71,425	40,149	30,908	59,855	1,428	1,379,517
350	180,934	91,202	49,027	39,517	46,948	923	1,459,366
559	197,668	100,874	54,067	35,507	123,226	1,844	1,300,081

Year	Average Number of Miles Open for Traffic.	Number of Passengers.				COACHING TRAFFIC.										COADS TRAFFIC (As per Analysis below)		Total Revenue.	Train Miles Run.	Receipts per Train Mile.
		1st Class.	2nd Class.	3rd Class.	Total.	Receipts for Passengers, including Season Tickets.			Total Receipts for Passengers.	Receipts for Parcels, Etc., &c.		Gross Receipts for Coaching Traffic.	Miscellaneous Revenue.		Tons.	Amount.				
						1st Class.	2nd Class.	3rd Class.		1st Class.	2nd Class.		Rents, Mail, &c.	Ac.						
1887	217½	32,381	142,285	156,611	331,277	14,199	23,952	12,385	50,536	5,838	56,374	4,012	167,338	107,401	257,877	728,266	84 08			
1888	220½	37,425	149,075	205,213	391,513	16,856	25,399	17,558	59,513	6,489	66,102	4,243	194,316	127,637	321,953	616,482	88 09			
1889	225	51,632	171,947	291,785	514,646	26,088	33,772	28,587	88,448	8,678	97,126	5,260	267,104	162,325	429,429	977,300	97 30			
1890	280	56,769	212,180	373,699	641,640	28,013	36,469	38,469	112,951	10,411	123,362	6,021	330,187	235,774	565,961	1,197,848	89 35			
1891	342	60,715	251,091	439,505	731,309	28,677	43,218	40,483	112,378	13,570	125,948	6,261	301,753	470,344	696,713	1,629,644	89 51			
1892	416	61,386	220,646	437,865	719,891	28,626	41,220	41,130	110,085	13,068	123,153	6,021	330,187	470,344	696,713	1,629,644	89 51			
1893	399	60,548	183,179	437,865	719,891	28,626	41,220	41,130	110,085	13,068	123,153	6,021	330,187	470,344	696,713	1,629,644	89 51			
1894	399	59,572	191,888	437,865	719,891	28,626	41,220	41,130	110,085	13,068	123,153	6,021	330,187	470,344	696,713	1,629,644	89 51			
1895	401	72,401	202,280	397,576	640,156	26,693	35,351	44,793	107,837	12,506	120,343	6,021	330,187	470,344	696,713	1,629,644	89 51			
1896	402½	92,654	228,211	447,276	722,002	37,716	42,026	55,591	135,335	15,348	150,683	8,777	363,370	566,336	929,706	1,896,036	90 24			
1897	420½	111,239	276,065	642,867	1,030,171	59,496	69,650	82,684	200,816	23,018	223,834	9,236	638,799	896,960	1,535,759	3,277,106	110 75			
1898	475	120,197	314,511	780,155	1,224,963	59,653	69,650	82,684	200,816	23,018	223,834	9,236	638,799	896,960	1,535,759	3,277,106	110 75			
1899	518	162,623	376,392	816,317	1,295,009	68,317	77,406	91,390	220,106	26,314	246,420	10,266	686,030	1,041,507	1,727,537	3,755,075	113 78			
1900	567	229,621	646,413	1,219,438	1,915,672	81,371	93,701	107,427	247,146	31,023	278,169	11,494	976,987	1,466,395	2,443,382	5,310,382	120 31			
1901	609	266,526	744,625	1,518,587	2,422,409	93,701	107,427	120,343	281,553	35,225	316,778	12,506	1,107,303	1,686,030	2,793,333	6,179,363	122 57			
1902	635	372,633	608,134	1,758,077	2,834,807	107,427	120,343	135,335	316,778	40,152	356,930	14,942	1,466,395	2,194,888	3,661,283	8,179,171	124 34			
1903	710	392,116	684,614	1,758,077	2,834,807	107,427	120,343	135,335	316,778	40,152	356,930	14,942	1,466,395	2,194,888	3,661,283	8,179,171	124 34			
1904	744½	371,187	679,220	1,628,301	2,660,928	100,006	120,343	135,335	316,778	40,152	356,930	14,942	1,466,395	2,194,888	3,661,283	8,179,171	124 34			
1905	782½	358,409	681,078	1,628,301	2,660,928	100,006	120,343	135,335	316,778	40,152	356,930	14,942	1,466,395	2,194,888	3,661,283	8,179,171	124 34			
1906	879½	325,434	673,051	1,640,263	2,639,340	115,576	121,005	180,124	457,179	42,888	499,767	17,804	2,376,674	1,450,366	3,827,040	4,438,158	108 94			

COMPARATIVE ANALYSIS OF GOODS TRAFFIC.

Year.	General Merchandise.		Live Stock.		Coal.		Other Goods.		Timber.		Preserved and Mill Products.		Wool.		Hides.		Skins, &c.		Manufactures and Cultural Products.		Sugars.		Sugar Cane.		Grand Total.	
	Amount.	No. of Horses, Cattle, &c.	Amount.	Tons of Live Stock.	Amount.	Tons.	Amount.	Tons.	Amount.	Tons.	Amount.	Tons.	Amount.	Tons.	Amount.	Tons.	Amount.	Tons.	Amount.	Tons.	Amount.	Tons.	Amount.	Tons.		
1887	63,688	133,252	1,308	16,823	1,761	2,027	1,007	45,000	3,500	9,947	22,430	2,957	358	86,197	13,422	17,508	1,875	1,718	13,755	7,587	14,308	10,894	3,451	183	107,401	
1888	83,478	197,182	1,811	19,814	3,085	2,027	1,007	45,000	3,500	9,947	22,430	2,957	358	86,197	13,422	17,508	1,875	1,718	13,755	7,587	14,308	10,894	3,451	183	107,401	
1889	379,384	336,021	1,865	20,904	2,649	8,146	4,825	49,450	2,902	16,372	48,227	7,708	658	82,230	14,771	17,508	1,902	2,068	12,358	9,361	13,784	11,571	4,261	125	277,037	
1890	155,477	306,965	2,077	23,584	3,284	27,515	17,219	58,752	3,848	14,402	45,741	6,011	936	80,737	13,500	16,286	1,902	2,068	12,358	9,361	13,784	11,571	4,261	125	277,037	
1901	121,503	305,802	2,800	13,325	2,596	27,515	17,219	58,752	3,848	14,402	45,741	6,011	936	80,737	13,500	16,286	1,902	2,068	12,358	9,361	13,784	11,571	4,261	125	277,037	
1902	96,177	240,100	3,568	15,790	3,302	100,881	48,330	136,596	8,108	12,103	43,459	7,115	1,016	80,246	14,621	23,391	1,627	2,285	9,107	8,108	13,194	15,015	6,078	500	435,425	
1903	105,558	145,565	4,054	16,984	3,532	103,718	46,400	154,636	8,083	12,103	43,459	7,115	1,016	80,246	14,621	23,391	1,627	2,285	9,107	8,108	13,194	15,015	6,078	500	435,425	
1904	81,405	176,284	4,158	12,974	3,532	103,718	46,400	154,636	8,083	12,103	43,459	7,115	1,016	80,246	14,621	23,391	1,627	2,285	9,107	8,108	13,194	15,015	6,078	500	435,425	
1905	105,279	211,498	4,176	16,981	3,634	103,718	46,400	154,636	8,083	12,103	43,459	7,115	1,016	80,246	14,621	23,391	1,627	2,285	9,107	8,108	13,194	15,015	6,078	500	435,425	
1906	105,558	145,565	4,054	16,984	3,532	103,718	46,400	154,636	8,083	12,103	43,459	7,115	1,016	80,246	14,621	23,391	1,627	2,285	9,107	8,108	13,194	15,015	6,078	500	435,425	
1907	218,899	507,875	4,947	37,193	11,618	149,029	68,100	70,734	4,515	73,974	168,599	2,680	233	68,022	12,636	20,668	1,414	2,312	45,767	16,835	26,037	17,715	11,115	384	366,513	
1908	214,582	410,354	19,425	53,734	9,610	306,636	138,532	139,026	5,486	45,004	91,845	3,682	353	51,810	9,376	13,531	1,873	1,356	86,628	88,995	21,653	14,901	18,896	20,960	765	605,959
1909	278,702	466,766	59,004	17,256	252,480	94,777	244,126	204,085	8,979	16,484	16,739	60,597	15,269	15,855	5,336	1,915	1,427	2,553	102,542	61,101	40,942	14,842	21,006	1,219	665,325	
1910	487,072	844,635	119,608	18,820	92,221	413,433	162,381	204,085	9,879	16,484	16,739	60,597	15,269	15,855	5,336	1,915	1,427	2,553	102,542	61,101	40,942	14,842	21,006	1,219	665,325	
1911	371,351	644,535	131,810	30,556	56,935	185,861	204,085	204,085	12,052	16,484	16,739	60,597	15,269	15,855	5,336	1,915	1,427	2,553	102,542	61,101	40,942	14,842	21,006	1,219	665,325	
1912	500,314	831,310	151,810	30,556	56,935	185,861	204,085	204,085	12,052	16,484	16,739	60,597	15,269	15,855	5,336	1,915	1,427	2,553	102,542	61,101	40,942	14,842	21,006	1,219	665,325	
1913	830,749	1,458,086	49,723	131,810	30,556	56,935	185,861	204,085	16,092	37,226	56,558	47,152	14,908	35,078	6,007	9,376	1,241	812	126,089	61,733	23,295	6,889	31,563	1,431	1,184,886	
1914	583,523	922,805	26,005	83,749	15,478	69,686	204,085	204,085	21,995	89,913	175,535	41,140	11,075	35,078	6,007	9,376	1,241	812	126,089	61,733	23,295	6,889	31,563	1,431	1,184,886	
1915	583,523	922,805	26,005	83,749	15,478	69,686	204,085	204,085	21,995	89,913	175,535	41,140	11,075	35,078	6,007	9,376	1,241	812	126,089	61,733	23,295	6,889	31,563	1,431	1,184,886	
1916	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1917	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1918	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1919	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1920	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1921	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1922	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1923	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1924	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1925	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1926	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1927	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1928	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1929	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1930	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1931	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1932	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1933	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1934	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1935	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1936	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1937	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163	71,425	42,140	30,008	59,855	1,428	1,378,517	
1938	439,388	728,619	47,135	106,648	31,324	1,025,926	274,859	344,383	19,587	34,294	66,952	39,677	8,923	59,163	4,707	2,826	601	306	157,163							

For figures previous to 1887 see Report for 1905.

COMPARATIVE STATEMENT OF WORKING EXPENDITURE

	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
	£	£	£	£	£	£	£	£	£	£	£	£	£	£
MAINTENANCE DEPARTMENT—														
Salaries and Office Expenses	1,607	2,614	3,864	4,730	5,275	6,404	5,220	3,685	3,505	4,254	4,117	5,578	4,939	5,931
Wages and Rations	18,945	21,932	37,505	34,785	37,685	49,865	39,051	38,455	36,545	40,909	39,644	45,020	44,924	46,470
Materials	16,364	15,349	14,155	14,473	14,745	26,200	9,688	5,024	3,335	606	13,684	12,596	14,791	7,622
Tools	1,551	1,102	1,259	744	85	3,451	3,426	3,281	2,874	3,067	6,022	5,079	4,921	5,549
Locomotive Power	1,570	1,664	2,128	2,130	2,604	2,137	2,967	2,399	2,484	1,849	2,989	3,669	3,727	2,654
Repairs to Roads, Bridges, Signals and Stations Buildings	4,766	4,911	6,220	6,406	6,845	7,745	6,958	10,852	14,527	14,327	16,143	16,107	13,560	13,330
Special Expenditure, Re-hauling, etc.	3,163	3,687	5,897	7,453	3,641	3,739	10,214	28,952	8,343	7,653	11,632	10,177	7,435	8,917
	47,384	49,559	61,056	72,719	71,650	101,579	71,584	92,726	64,905	72,965	93,340	96,916	89,673	110,079
LOCOMOTIVE DEPARTMENT—														
Salaries and Office Expenses	1,805	1,814	2,034	2,319	3,075	6,949	6,368	6,417	6,524	6,831	7,005	7,250	6,881	7,519
Wages and Rations	14,789	18,993	26,295	36,188	36,770	31,162	24,161	24,250	24,587	37,732	47,919	54,320	50,366	60,499
Fuel—Coal	21,814	26,244	41,444	37,385	25,600	17,240	15,455	15,306	17,978	30,214	34,740	40,008	38,804	107,564
Wood	357	270	314	1,120	730	247	17	...	...	346	563	92	...	...
Water	2,210	2,656	4,099	7,277	6,600	6,145	4,107	3,712	3,140	4,666	5,389	6,838	6,553	10,252
Oil, Tallow, etc.	2,900	3,463	4,875	6,373	3,665	2,645	3,317	2,034	2,271	4,756	6,560	6,574	6,401	9,326
Clothing and Miscellaneous	74	64	119	103	102	82	136	226	802	3,779	6,561	12,943	1,926	6,620
Wages, Repairs to Engines	14,603	15,545	24,620	39,128	26,490	29,903	24,550	22,916	17,785	22,271	30,626	32,032	34,300	43,443
Materials	3,649	6,505	8,272	17,391	10,704	11,650	7,682	7,686	6,267	12,391	15,998	13,693	15,788	16,250
Fuel, Oil, etc.	787	92	2,652	665	63	458	1,310	1,212	1,149	1,111	1,238	1,405	1,576	2,067
Tools and Machinery	1,251	2,069	2,379	3,904	5,346	3,271	2,551	2,215	2,315	2,799	2,892	2,547	3,573	3,800
Wages, Repairs to Carriages	5,451	6,155	8,732	15,157	18,543	30,562	16,338	14,580	15,610	15,564	15,632	25,564	22,392	19,941
Materials	2,235	3,387	4,544	5,822	6,824	7,333	5,133	5,365	7,344	7,932	6,075	9,340	11,780	9,146
Wages, Repairs to Wagons	4,486	6,333	6,777	15,280	21,000	20,341	12,737	14,325	13,621	17,534	22,133	24,181	24,367	29,185
Materials	2,196	2,820	5,461	8,246	11,890	9,657	6,275	8,974	11,172	15,008	15,914	16,559	21,935	16,825
	78,567	95,670	142,317	193,228	177,164	167,875	130,015	127,758	130,674	170,492	129,333	235,734	255,742	492,936
TRAFFIC EXPENSES—														
Salaries, Wages, and Rations	32,597	40,293	76,532	114,632	67,789	68,777	50,400	60,697	53,302	87,254	103,155	111,870	124,000	163,448
Fuel and Lighting, Water	1,372	1,743	2,004	5,105	4,950	3,042	2,171	2,333	3,625	3,968	3,163	3,493	3,298	6,835
Clothing	343	403	664	593	1,701	479	845	925	862	1,555	1,519	1,834	1,816	1,917
Printing, Stationery, Tickets	1,441	1,389	1,892	2,608	2,600	2,618	1,574	2,099	2,873	3,628	5,282	7,359	7,227	8,425
Wagon Covers, Ropes, etc.	3,658	2,560	3,103	2,564	4,075	3,376	2,089	1,880	3,130	6,016	4,277	6,559	6,676	8,229
Miscellaneous Expenditure, etc.	1,898	2,942	3,917	6,772	6,648	5,455	4,759	6,126	8,305	14,259	14,854	13,968	16,208	21,045
	41,639	48,360	82,502	132,516	107,130	83,747	61,838	63,390	72,685	116,660	132,250	145,143	159,239	212,899
LEGAL CHARGES—														
Salaries of Manager, Accountant, and Clerks	3,496	3,567	4,411	5,207	5,671	5,813	6,203	5,846	6,227	6,544	7,769	8,776	9,840	9,729
Office Expenses	562	545	650	1,004	1,122	991	118	771	1,111	2,122	2,456	2,627	2,765	2,704
Advertising Charges	101	60	125	193	47	675	69	4	...	...	...	105	227	160
Miscellaneous Telegraph Expenses and Special Expenditure	1,117	1,116	1,971	4,099	4,352	3,705	3,406	2,816	2,890	3,380	5,895	5,633	4,238	6,699
Salaries and Additions to Buildings, New Station Accommodations, Rolling Stock, etc.	12,692	18,490	25,910	39,405	28,734	6,832	729	8,976	9,970	16,421	110,029	191,041	110,737	88,474
Compensation	464	569	1,225	7,363	3,521	1,319	377	709	665	22,086	10,326	3,658	4,561	5,409
	18,524	24,615	34,293	67,330	44,234	19,355	11,223	19,195	21,063	82,873	138,176	112,062	124,268	115,175
TOTALS	186,523	217,404	336,157	455,001	400,748	372,556	274,598	303,039	288,727	421,900	553,668	689,815	686,942	691,099
Expenditure per Train Mile	57.31	50.38	54.68	61.32	68.45	58.95	55.11	66.96	50.58	44.47	57.72	51.24	54.97	66.55

* Includes proportion of cost of Relaying carried out from 1894-97 inclusive, and agreed to be charged to Working Expenses.

† Includes £37,129 being proportion of cost of Relaying carried out during 1898, £8,742 in 1899, and agreed to be charged to Working Expenses.

‡ Represents amount to credit of Sub-Head.

APPENDIX No. 3.]

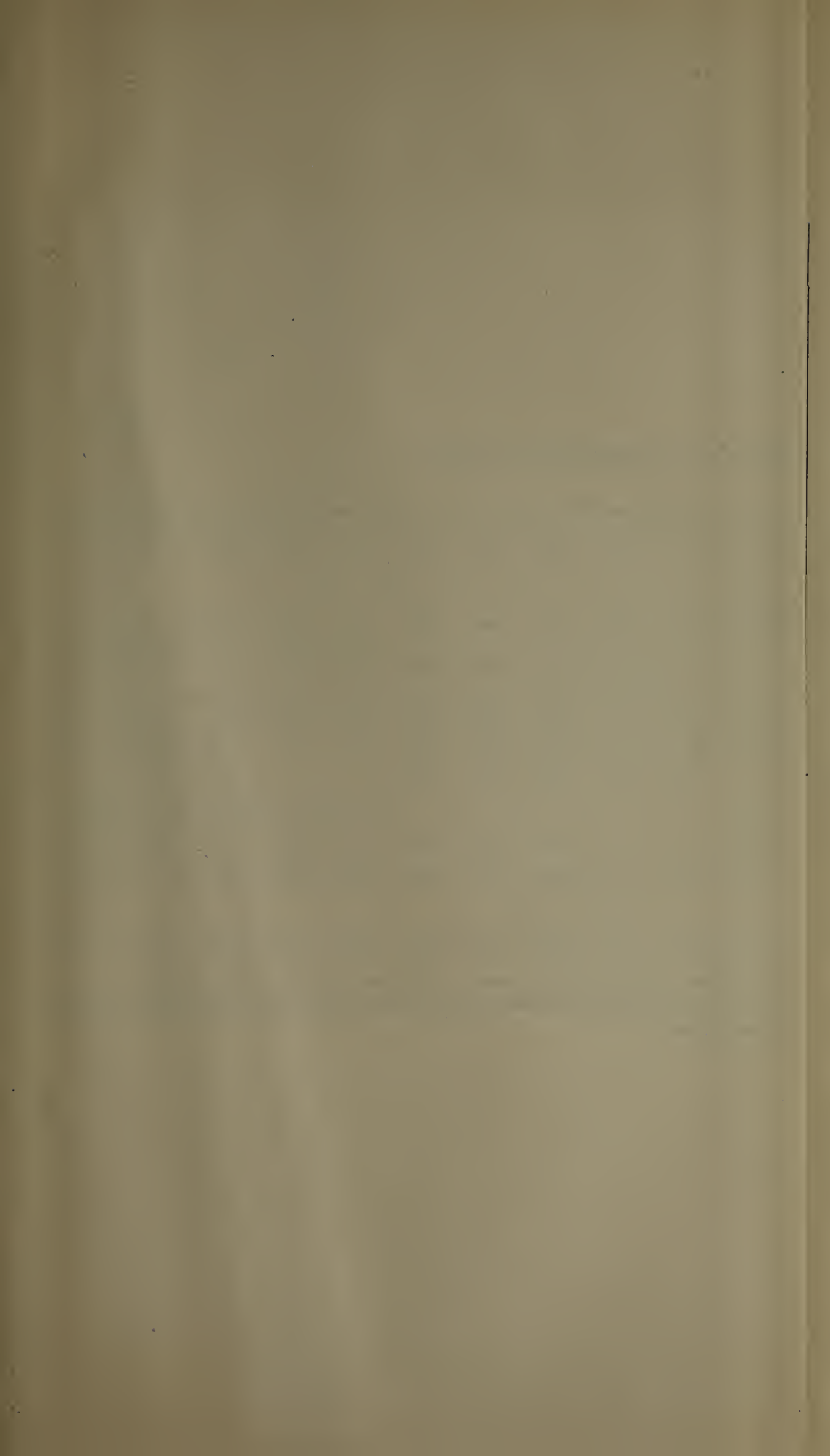
COMPARATIVE STATEMENT OF WORKING EXPENDITURE.

	1901.	1902.	1903.	1904.	1905.	1906.
MAINTENANCE DEPARTMENT :—						
Salaries and General Superintendence	£ 8,858	£ 12,701	£ 14,924	£ 20,297	£ 19,119	£ 19,568
Contingent and other Expenses ...	3,196	4,135	5,614	5,179	5,024	4,825
Maintenance and Renewal of Permanent Way ...	124,824	133,884	145,194	121,317	109,586	112,442
Repairs of Roads, Bridges, Signals, Works, and Gates ...	10,778	14,433	18,809	15,979	12,562	11,142
Repairs of Stations and Buildings ...	10,652	10,573	13,882	12,610	8,489	13,999
Special Expenditure (Repairing Washaways, &c.) ...	3,005	337	4,156	2,118	7,307	2,200
Rent (Engineer-in-Chief's Offices) ...	303	369	370	131	42	...
	161,616	176,432	202,949	177,631	162,129	164,176
LOCOMOTIVE DEPARTMENT :—						
Salaries and General Superintendence	10,000	18,560	27,785	31,662	23,964	16,892
Contingent and other Expenses ...	3,401	6,302	5,470	5,478	4,016	2,567
Running Expenses ...	298,891	354,578	350,137	288,280	300,596	292,714
Electrical Power ...	305	13,718	10,801	10,425	Cr. 1,572	97
Special Expenditure ...	...	...	...	...	2,723	2,209
Repairs and Renewals, Locomotives	100,908	195,814	260,347	253,018	168,180	154,108
" " " Carriages ...	39,657	42,937	54,831	79,521	62,235	60,649
" " " Wagons ...	57,789	78,239	110,993	102,666	60,999	56,629
Examination Carriages and Wagons	...	...	...	...	16,231	33,180
Special Expenditure ...	...	...	...	...	301	769
	510,951	710,148	820,364	771,050	637,673	619,814
TRAFFIC EXPENSES :—						
Salaries, Wages, and Rations ...	219,381	287,291	361,164	316,144	312,830	295,860
Contingent and other Expenses ...	19,701	31,339	34,711	30,864	31,812	32,630
Fuel, Lighting, Water, Equipment, and Requisites ...	25,410	27,874	31,971	23,088	22,643	21,086
Wagon Covers, Ropes and Chains ...	19,972	14,680	22,565	14,562	13,556	10,076
	284,464	361,184	450,411	384,658	380,841	359,652
GENERAL CHARGES :—						
Salaries of Managers, Chief Accountant and Clerks, Wages and Rations ...	13,010	19,313	26,071	29,189	29,465	30,220
Contingent and other Expenses ...	7,776	12,946	14,368	11,792	10,104	17,055
Sanitary and Hospital Arrangements	4,036	1,499	5,927	3,240	...	...
Maintenance of Labour Department	1,723	4,170				
Tree Planting ...	383	365	433	577	539	540
Johannesburg Agency ...	1,511	1,899	2,010	2,071	2,189	1,898
Compensation ...	11,511	14,219	13,695	6,630	11,162	5,391
Printing Office ...	...	764	1,889	688	275	569
Railway Police ...	...	...	...	...	...	4,220
Special Expenditure ...	...	...	...	...	...	3,300
Pay of Men on Active Service ...	...	...	...	...	...	5,501
Government Cold Stores ...	...	...	1,971	3,746	3,576	2,129
	39,950	55,175	66,264	57,933	57,310	70,823
GENERAL STORES DEPARTMENT :—						
Salaries, Wages, and General Superintendence ...	2,373	4,743	6,397	9,103	8,357	4,224
Contingent and other Expenses ...	344	820	864	1,133	1,142	855
	2,717	5,563	7,261	10,236	9,499	5,079
SPECIAL EXPENDITURE :—						
Works, Renewals, and Improvements	159,328	125,521	243,859	129,702	42,007	17,067
	1,159,026	1,434,023	1,791,108	1,531,210	1,289,459	1,236,611
EXPENDITURE PER TRAIN MILE ...	63·96	77·33	88·60	85·62	69·03d.	64·12d.

APPENDIX No. 4.]

COMPARATIVE STATEMENT OF REVENUE AND EXPENDITURE FOR THE
TWELVE MONTHS ENDED 31st DECEMBER, 1906—'05.

	1906.	1905.	INCREASE.		DECREASE.	
			Amount.	Percentage.	Amount.	Percentage.
REVENUE :—	£	£	£	.	£	.
Goods Traffic	1,300,081	1,459,366	...	...	159,285	10·92
Passenger Traffic	424,705	457,179	...	...	32,474	7·10
Parcel Traffic	41,487	42,528	...	...	1,101	2·59
Miscellaneous Revenue	59,844	67,954	...	..	8,110	11·83
Mails (Carriage of)	10,799	7,850	2,949	37·57	...	...
	1,836,916	2,034,937	2,949	...	200,970	...
EXPENDITURE :—						
Maintenance Department	164,176	162,129	2,047	1·26	...	...
Locomotive Department	619,814	637,673	...	...	17,859	2·80
Traffic Dept.	359,652	380,841	...	...	21,189	5·56
General Charges	60,790	55,647	5,143	9·24	...	...
Railway Police	4,220	...	4,220	...	...	...
Pay of Men on Active Service	5,501	...	5,501	...	...	...
Compensation	5,391	11,162	...	...	5,771	51·70
Special Expenditure	17,067	42,007	...	...	24,940	59·37
	1,236,011	1,289,459	16,911	...	69,759	...
Repayment Services, &c.	54,682	31,702	22,980	...	...	...
LOAN EXPENDITURE :—						
New Rolling Stock, Relaying Sidings, &c.	143,281	240,604	...	...	97,323	...
Durban Bay Lands	4,166	58	4,008	...	...	...



APPENDIX No. 4.]

COMPARATIVE STATEMENT OF REVENUE AND EXPENDITURE FOR THE
TWELVE MONTHS ENDED 31st DECEMBER, 1906—'05.

	1906.	1905.	INCREASE.		DECREASE.	
			Amount.	Percentage.	Amount.	Percentage.
REVENUE :—	£	£	£		£	
Goods Traffic	1,300,081	1,459,366	...	...	159,285	10·92
Passenger Traffic	424,705	457,179	...	...	32,474	7·10
Parcel Traffic	41,487	42,588	...	...	1,101	2·59
Miscellaneous Revenue	59,844	67,954	...	..	8,110	11·93
Mails (Carriage of)	10,799	7,850	2,949	37·57	...	...
	1,836,916	2,034,937	2,949	...	200,970	...
EXPENDITURE :—						
Maintenance Department	164,176	162,129	2,047	1·26	...	...
Locomotive Department	619,814	637,673	...	...	17,859	2·80
Traffic Dept.	359,652	380,841	...	...	21,189	5·56
General Charges	60,790	55,647	5,143	9·24	...	...
Railway Police	4,220	...	4,220	...	...	...
Pay of Men on Active Service	5,501	...	5,501	...	...	...
Compensation	5,391	11,162	...	...	5,771	51·70
Special Expenditure	17,067	42,007	...	...	24,940	59·37
	1,236,611	1,289,459	16,911	...	69,759	...
Repayment Services, &c.	54,682	31,702	22,980	...	...	...
LOAN EXPENDITURE :—						
New Rolling Stock, Relaying Sidings, &c.	143,281	240,604	...	...	97,323	...
Durban Bay Lands	4,166	58	4,008	...	...	...

COMPARATIVE ANALYSIS OF CAPITAL EXPENDITURE DEFRAID FROM REVENUE.

Particulars of Expenditure.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.
	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
1. Houses for Flatlayers and other Staff	2,966	1,185	..	..	448	..	..	1,588	5,379	17,709	9,029	20,541	20,553	17,551	5,780	127	7
2. New Buildings and Alterations, Workshops, Stores, Hots, Barracks, etc.	12,040	2,061	191	727	2,963	3,025	398	6,163	6,705	24,637	34,165	40,008	28,836	37,791	12,960	6,903	1,423
3. New Machinery and Erection, Tools, Turntables, etc.	5,568	6,454	151	Credit, 197	..	1,004	..	948	7,106	1,747	4,164	5,133	10,600	36,734	38,541	9,226	739
4. New Sidings and Enlargement of Yards	4,359	3,585	1,321	63	3,413	4,126	2,478	6,842	6,412	4,372	5,708	10,993	4,501	9,462	1,855	9,962	4,770
5. Additional Water Supply	2,293	2,975	353	..	1,112	1,354	3,116	4,314	12,644	14,922	10,793	27,909	15,616	16,107	8,670	2,766	1,029
6. Equipment of Stations ... ..	..	94	..	..	..	..	..	69	73	298	29	620	..	..	..	..	..
7. Hardening Station Approaches, Roads, Fencing, New Gates and Crossings, Platforms, Signals, and Land Compensation	841	668	551	54	207	121	427	3,541	4,072	5,044	4,854	23,304	34,185	30,463	5,529	4,683	1,576
8. New Engines and Rolling Stock, Alterations to Bogies, Vacuum Pipes, and Strengthening Permanent Way	10,043	11,199	3,609	..	..	..	865	76,826	39,183	28,236	6,350	15,201	11,665	66,450	34,243	3,763	5,484
9. Fire Engine ... ..	..	289	..	2	..	..	..	..	185	..	..	..	..	..	..	..	..
10. Miscellaneous Expenditure, Fencing, Electric Train Staff, etc.	705	204	676	5	787	114	51	1,748	8,682	5,772	13,402	15,660	10,525	30,321	24,004	4,827	2,039
	39,405	28,724	5,532	729	8,976	9,979	9,194	102,029	91,041	102,737	88,474	159,328	125,521	243,859	129,702	42,007	17,067

For figures previous to 1890 - see report for 1905.

APPENDIX No. 6.]

COMPARATIVE ANALYSIS OF REVENUE AND EXPENDITURE FOR THE
YEAR ENDED 31st DECEMBER, 1906-1905.

PARTICULARS.	YEAR ENDED 31st DECEMBER, 1906.					YEAR ENDED 31st DECEMBER, 1905.				
	Miles open for Traffic	...	...	...	879½	Miles open for Traffic	...	...	...	782¼
	Train Mileage	...	...	...	4,628,953	Train Mileage	...	...	...	4,433,153
REVENUE.										
1906.					1905.					
REVENUE.	Numbers or Tonnage.	Revenue.	Per Open Mile.	Per Train Mile.	Numbers or Tonnage.	Revenue.	Per Open Mile.	Per Train Mile.		
Passengers, First, Second, and Third Class	2,639,348	£ 424,705	£ 482·90	d. ...	2,668,028	£ 457,179	£ 584·07	d. ...		
Parcels Traffic ... ..	...	41,487	47·17	...	...	42,588	54·41	...		
Miscellaneous Revenue ... ..	...	59,844	68·04	...	...	67,954	86·81	...		
Mails (Carriage of) ... ..	...	10,799	12·28	...	...	7,850	10·03	...		
Total Coaching ... ..	...	536,835	610·39	...	...	575,571	735·32	...		
" Goods	2,383,152	1,300,081	1478·20	...	2,276,674	1,459,366	1864·41	...		
" Revenue ... ..	...	1,836,916	2088·59	95·24	...	2,034,937	2599·73	108·94		
EXPENDITURE.										
1906.					1905.					
WORKING EXPENSES.	Expendi- ture.	Per Open Mile.	Per Train Mile.	Per Cent. to Revenue.	Per Cent. to Total Working Expenses.	Expendi- ture.	Per Open Mile.	Per Train Mile.	Per Cent. to Revenue.	Per Cent. to Total Work- ing Ex- penditure.
Maintenance Department	£ 164,176	£ 186·67	d. 8·51	8·94	13·28	£ 162,129	£ 207·13	d. 8·68	7·99	12·57
Locomotive Department	619,814	704·73	32·14	33·74	50·12	637,673	814·66	34·14	31·34	49·45
Traffic Department ...	359,652	408·93	18·65	19·58	29·08	380,841	486·54	20·39	18·72	29·53
General Charges	60,790	69·12	3·15	3·31	4·92	55,647	71·09	2·98	2·73	4·32
Railway Police	4,220	4·80	0·22	0·23	0·34	...	...	...	...	...
Pay of Men on Active Service	5,501	6·25	0·29	0·30	0·44	...	...	...	...	...
Compensation	5,391	6·13	0·28	0·29	0·44	11,162	14·26	0·60	0·55	0·87
Special Expenditure ...	17,067	19·41	0·88	0·93	1·38	42,007	53·67	2·24	2·06	3·26
Total Expenditure ...	1,236,611	1,406·04	64·12	67·32	100·00	1,289,459	1,647·35	69·03	63·37	100·00
Net Profit(after deducting Working Expenses)...	600,305	682·55	31·12	32·68	...	745,478	952·38	39·91	36·63	...
Expenditure percentage to Gross Revenue, 67·32.						Expenditure percentage to Gross Revenue, 63·37.				

SUMMARY OF REVENUE AND EXPENDITURE FOR THE YEARS 1887 TO 1906, INCLUSIVE.

Year.	Office of Line Open. Average.	No. of Passengers.	Tonnage of Goods and Minerals.	Train Mile Run.	Earnings per Mile of Line Open.	Expenses per Mile Open.	Expenses per Train Mile.	Expenses per Train Mile.	Expenses per cent. of Earnings.	Capital Invested on Line Open.	Net Receipts per mile of Capital.	Coupling.	EARNINGS.			WORKING EXPENDITURE.						
													Goods.	Freight.	Total.	Maintenance.	Locomotive.	Traffic.	General Charges.	Compensation of Miscellaneous Expenses.	Retirements.	Total.
					£	£	d.	d.		£	£ s. d.		£	£	£	£	£	£	£	£	£	£
1887	217½	331,077	157,338	428,206	1,186	800	57 31	04 98	67 94	2,700,000	5 2 2	56,374	197,491	4,612	257,077	47,084	78,667	51,639	4,865	1,117	.	173,632
1888	230½	399,513	191,316	938,444	1,576	961	56 38	08 99	57 29	2,763,000	5 7 6	66,102	277,637	4,343	347,982	43,359	95,070	48,360	5,159	1,416	.	199,364
1889	235	514,464	267,104	1,330,100	2,379	1,334	64 50	97 30	66 90	3,000,000	7 16 8	97,126	432,926	5,610	535,294	61,046	142,317	88,802	6,412	1,971	.	300,248
1890	265	641,646	301,763	1,629,841	2,129	1,461	61 32	87 35	68 63	3,660,591	5 4 3	120,448	473,364	6,921	606,713	72,719	193,228	132,516	13,667	4,060	.	416,396
1891	342	731,369	300,157	1,827,483	1,673	1,688	58 45	89 31	63 00	4,828,342	4 8 5½	123,749	430,175	8,374	572,296	71,540	177,164	107,030	11,228	4,332	.	372,024
1892	386	719,891	412,728	1,483,778	1,303	947	58 95	85 08	58 63	5,892,419	2 17 5	125,600	390,945	8,243	632,768	68,865	167,675	63,747	8,790	3,705	32,914	365,704
1893	309	610,698	304,597	1,197,491	1,034	650	55 11	83 84	65 73	5,060,122	2 7 1¼	111,612	296,896	8,777	416,615	71,694	130,015	61,438	7,087	3,405	.	253,649
1894	399	649,136	336,553	1,156,824	1,108	737	58 96	93 82	63 12	6,078,489	2 16 6¼	121,396	335,191	9,289	465,872	92,726	197,738	63,300	7,403	2,616	.	294,061
1895	401	624,002	313,379	1,352,664	1,013	695	50 08	95 53	52 94	4,117,211	4 1 0	150,683	396,313	9,418	539,494	64,905	139,674	72,085	8,203	2,689	.	278,756
1896	422½	896,859	628,799	2,277,100	2,025	1,049	44 47	119 75	37 14	6,236,555	11 9 8¼	230,018	899,560	9,336	1,136,234	72,565	179,492	116,660	31,102	12,677	9,194	421,900
1897	470½	1,030,171	680,040	2,424,182	2,502	1,387	67 72	104 08	58 46	6,568,507	7 2 1¼	238,315	813,501	9,943	1,051,359	83,330	229,333	132,520	20,531	8,595	162,009	683,068
1898	475	1,221,963	914,507	2,762,422	2,077	1,242	51 24	85 70	59 79	6,950,621	5 14 1½	340,499	736,176	10,761	998,416	99,916	235,724	145,143	15,346	5,638	10,441	589,615
1899	518	1,438,347	976,367	2,750,355	1,815	1,214	51 87	89 01	66 90	7,367,583	4 5 7¼	255,281	665,323	11,404	940,100	89,673	265,742	103,249	16,573	4,658	102,737	668,942
1901	609	2,425,409	1,590,336	3,440,660	2,710	1,972	68 55	93 57	71 73	7,800,216	4 9 11½	335,041	879,866	20,735	1,042,281	110,079	452,936	212,899	16,005	8,699	89,474	891,089
1902	635	2,805,392	1,744,713	3,460,637	3,222	2,258	77 33	110 34	70 98	9,271,691	6 12 0 41	340,985	1,450,155	24,966	2,046,116	161,616	610,951	281,464	31,166	11,511	159,320	1,169,065
1903	710	2,834,807	2,052,622	4,031,600	3,568	2,653	88 40	126 72	69 92	10,843,179	7 6 1 80	330,476	1,972,599	56,777	2,561,651	176,342	710,148	361,104	46,518	14,220	125,521	1,434,023
1904	744½	2,710,911	1,915,850	4,092,020	2,698	2,087	65 62	109 14	79 18	11,170,487	3 12 1 25	435,229	1,379,517	59,188	1,633,934	177,651	771,080	384,658	61,559	6,430	129,702	1,531,210
1905	762½	2,666,028	2,270,674	4,483,158	2,600	1,947	69 63	109 94	62 37	12,527,544	5 15 0 78	479,767	1,459,366	75,804	2,034,917	162,129	637,673	380,841	63,647	11,162	42,007	1,209,499
1906	879½	2,639,348	2,383,162	4,628,953	2,089	1,405	64 12	86 24	67 32	13,536,635	4 8 9 32	464,192	1,300,081	70,643	1,836,916	164,176	619,814	359,632	60,795	15,112	17,667	1,336,081

APPENDIX No. 8.]

STATEMENT OF NATAL GOVERNMENT RAILWAYS PROPORTION OF THROUGH TRAFFIC WITH OTHER
SOUTH AFRICAN RAILWAYS FOR THE YEARS 1906 AND 1905.

PASSENGER TRAFFIC.										PARCELS TRAFFIC.	GOODS TRAFFIC.			
TRAFFIC.	NO. OF PASSENGERS.			RECEIPTS.				Total Tonnage.	LIVE STOCK.			RECEIPTS.		
	Classes.			Total.	1st Class.	2nd Class.	3rd Class.		Total.	Horses, Mules, &c.	Sheep, Pigs, &c.		Total.	
	First.	Second.	Third.											
Up, <i>via</i> Charlestown { 1906 1905	8,811 14,205	17,213 24,693	51,489 74,834	77,513 113,732	£ £	£ £	£ £	£ £	406,727 567,983	9,216 15,319	20,768 21,972	29,984 37,291	£ £	627,162 934,760
Up, <i>via</i> Van Reenen { 1906 1905	2,005 ...	4,809 ...	4,760 ...	11,574 ...	3,075 ...	3,470 ...	1,579 ...	8,124 ...	83,590 ...	1,424 ...	10,606 ...	12,030 ...	92,845 ...	
Down, <i>via</i> Charlestown { 1906 1905	12,908 15,631	19,970 18,104	39,819 42,741	72,697 76,476	26,511 32,511	24,260 22,842	28,834 31,175	79,605 86,528	11,005 9,570	2,378 787	641 425	3,019 1,212	14,534 13,008	
Down, <i>via</i> Van Reenen { 1906 1905	2,985 ...	5,731 ...	7,210 ...	15,926 ...	3,650 ...	4,297 ...	2,286 ...	10,233 ...	12,621 ...	1,427 ...	2,762 ...	4,189 ...	10,581 ...	
Total ... { 1906 1905	26,709 29,836	47,723 42,797	103,278 117,575	177,710 190,208	48,043 55,176	47,712 45,257	73,520 83,733	169,275 184,166	513,943 577,553	14,445 16,106	34,777 22,397	49,222 38,503	745,122 947,768	

Statement shewing the Number of Passengers between N.C.R. Stations and Stations on other South African Railways for the Years 1906 and 1905.

TRAFFIC.	C. S. A. R.				C. G. R.				R. R.			B. & M. R.			C. F. L. M.				Total No. of Passengers.		
	No. of Passengers.				No. of Passengers.				No. of Passengers.			No. of Passengers.			No. of Passengers.						
	1st.	2nd.	3rd.	Total.	1st.	2nd.	3rd.	Total.	1st.	2nd.	3rd.	1st.	2nd.	3rd.	1st.	2nd.	3rd.	Total.			
Up, <i>via</i> Charlestown {1906 {1905	8,576	16,927	51,011	76,514	168	244	466	878	2	5	1	8	46	27	9	82	19	10	2	31	77,513
Up, <i>via</i> Van Reenen {1906 {1905	13,911	24,357	73,821	112,089	211	301	990	1,502	2	2	...	4	48	26	15	89	33	7	8	48	113,732
	1,897	4,471	4,435	10,803	100	335	325	760	...	...	...	...	8	2	...	10	...	...	...	...	11,574
Down, <i>via</i> Charlestown {1906 {1905	12,675	19,380	38,962	71,017	171	521	843	1,535	...	10	1	11	37	50	13	100	25	9	...	34	72,697
	15,267	17,726	41,742	74,735	317	337	985	1,639	2	4	3	9	27	28	11	66	18	9	...	27	76,476
Down, <i>via</i> Van Reenen {1906 {1905	2,923	5,706	6,614	15,243	62	25	596	683	...	...	...	...	...	...	...	...	...	...	...	...	15,926
Total ... {1906 {1905	26,071	46,484	101,022	173,577	501	1,125	2,230	3,856	2	15	2	19	91	79	22	192	44	19	2	65	177,710
	29,173	42,083	115,563	186,824	528	638	1,975	3,141	4	6	3	13	75	54	26	155	51	16	8	75	190,208

Statement of Tonnage and Live Stock Forwarded to and Received from other South African Railways for Years 1906 and 1905.

TRAFFIC.	GOODS TONNAGES.							LIVE STOCK.							TOTAL.
	C.S.A.R.	C.G.R.	N.C.C.R.	R. R.	B. & M.R.	C.F.L.M.	TOTAL.	C. S. A. R.	C. G. R.	C.F.L.M.	N.C.C.R.	Horses, &c.	Sheep,Pigs,&c.	Horses, &c.	
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Horses, &c.	Sheep,Pigs,&c.	Horses, &c.	Sheep,Pigs,&c.	Horses, &c.	Sheep,Pigs,&c.	Horses, &c.	
Up, <i>via</i> Charlestown {1906 {1905	349,693	56,757	...	246	23	8	406,727	9,197	20,768	19	...	...	...	...	29,934
Up, <i>via</i> Van Reenen {1906 {1905	476,232	91,740	...	1	9	1	567,983	15,072	21,972	161	...	...	...	...	37,291
Down, <i>via</i> Charlestown {1906 {1905	83,009	579	2	...	...	...	83,590	1,386	10,218	38	388	...	...	...	12,030
Down, <i>via</i> Van Reenen {1906 {1905	9,541	664	13	1	3	783	11,005	2,367	641	11	...	...	...	...	3,019
	9,236	330	1	1	2	...	9,570	781	215	6	210	...	...	...	1,212
	11,993	624	4	...	...	...	12,621	1,056	1,408	352	1,226	19	128	...	4,189

Total ...	454,236	58,624	19	247	26	791	513,943	14,006	33,035	420	1,614	19	128	...	49,222
	485,468	92,070	1	2	11	1	577,553	15,853	22,187	167	210	...	...	...	38,503

APPENDIX No. 10.]

STATEMENT SHOWING THE PROPORTIONS EARNED BY THE VARIOUS RAILWAY ADMINISTRATIONS FROM PASSENGER, PARCELS, GOODS AND LIVE STOCK, IN THROUGH TRAFFIC WITH N.G.R., FOR THE YEARS 1906-5.

Administrations.	Passenger Traffic.	Parcels Traffic.	Goods Traffic.	Total.
Natal Government Railways { 1906 1905	£ 169,275 184,167	£ 9,368 10,014	£ 745,122 947,763	£ 923,765 1,141,949
Central South African Railways. { 1906 1905	120,478 129,421	10,568 11,242	654,319 316,930	785,365 957,593
Cape Government Railways { 1906 1905	5,084 4,903	625 414	19,172 60,512	24,881 65,829
New Cape Central Railways. { 1906 1905	6 ...	1 1	44 3	51 4
Rhodesian Railways ... { 1906 1905	741 559	27 32	498 97	1,266 688
Beira and Mashonaland Railways. { 1906 1905	150 49	6 6	37 23	193 78
Caminho de Ferro Lourenço Marques. { 1906 1905	32 37	6 7	204 14	242 53
1906 1905	295,766 319,136	20,601 21,716	1,419,396 1,825,347	1,735,763 2,166,199

APPROPRIATION ACCOUNT,

1905-1906.

No. of Vote Item.	Particulars.	Voted for Year.			Total Expended to 30th June, 1906.			Amount Under Expended.			Amount Over Expended.		
		£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
A.—MAINTENANCE OF WAYS AND WORKS.													
1	Salaries and General Superinten- dence	21,582	0	0	18,714	6	5	2,867	13	7	...		
2	Contingent and other Expenses ...	6,152	0	0	4,812	4	6	1,339	15	6	...		
3	Maintenance and Renewal of Per- manent Way	111,520	0	0	114,626	17	11	...			3,106	17	11
4	Repairs to Roads, Bridges, Signals, Works and Gates	14,100	0	0	11,534	11	3	2,565	8	9	...		
5	Repairs to Stations and Buildings	14,498	0	0	9,989	9	10	4,508	10	2	...		
6	Special Expenditure (Repairing Washaways, etc.) ... ..	...			3,167	17	1	...			3,167	17	1
		167,852	0	0	162,845	7	0	11,281	8	0	6,274	15	0
B.—LOCOMOTIVE POWER.													
1	Salaries and General Superinten- dence	21,821	0	0	17,259	13	1	4,561	6	11	...		
2	Contingent and other Expenses ...	4,402	0	0	2,886	17	1	1,515	2	11	...		
3	Running Expenses	315,435	0	0	297,511	13	4	17,923	6	8	...		
4	Repairs and Renewals	184,850	0	0	149,438	10	0	35,411	10	0	...		
5	Electrical Power	350	0	0	48	11	5	301	8	7	...		
6	Special Expenditure ... ..	...			3,154	18	7	...			3,154	18	7
		526,858	0	0	470,300	3	6	59,712	15	1	3,154	18	7
C.—REPAIRS AND RENEWALS OF CARRIAGES AND WAGONS													
1	Carriages Repairs	62,895	0	0	52,828	6	0	10,066	14	0	...		
2	Wagon Repairs	69,100	0	0	46,232	2	2	22,867	17	10	...		
3	Carriage and Wagon Examination	30,000	0	0	32,796	14	11	...			2,796	14	11
4	Special Expenditure ... ..	...			871	3	7	...			871	3	7
		161,995	0	0	132,728	6	8	32,934	11	10	3,667	18	6
D.—TRAFFIC EXPENSES.													
1	Salaries, Wages, and Rations ...	311,994	0	0	308,660	4	5	3,333	15	7	...		
2	Contingent and other Expenses ...	32,162	0	0	34,855	9	2	...			2,693	9	2
3	Lighting, Water, Equipment and Requisites	21,800	0	0	23,538	0	6	...			1,738	0	6
4	Wagon Covers, Ropes and Chains	20,600	0	0	11,112	16	10	9,487	3	2	...		
5	Cartage	45,000	0	0	35,966	10	1	9,033	9	11	...		
		431,556	0	0	414,133	1	0	21,854	8	8	4,431	9	8
E.—GENERAL CHARGES.													
1	Salaries of Manager, Chief Accountant, Clerks, and Care- takers, and Wages and Rations of Messengers ...	30,527	0	0	29,396	8	8	1,135	11	4	...		
2	Contingent and other Expenses ...	19,485	0	0	16,931	5	8	2,553	14	4	...		
3	Tree Planting	600	0	0	586	12	2	13	7	10	...		
4	Johannesburg Agency	2,109	0	0	2,065	14	3	43	5	9	...		
5	Compensation	*222	0	0	10,218	13	8	...			2,246	13	8
6	Printing Office	7,750	0	0	310	13	6	89	6	6	...		
7	Robberies and Defalcations at Stations	400	0	0	663	1	11	4	18	1	...		
		*668	0	0	663	1	11	4	18	1	...		
	Forward	61,766	0	0	60,172	9	10	3,840	3	10	2,246	13	8
	Forward	1,288,261	0	0	1,180,006	18	2	125,783	3	7	17,529	1	9

APPROPRIATION ACCOUNT,

1905-1906.

No. of Vote Item.	Particulars.	Voted for Year.	Total Expended to 30th June 1906.	Amount Under Expended.	Amount Over Expended.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
	Brought Forward ...	1,406,503 0 0 5,595 0 0 }	1,282,704 11 3	149,201 17 8	19,808 8 11
	J.—PAY OF MEN ON ACTIVE SERVICE ...	...	4,528 10 7	...	4,528 10 7
		1,406,503 0 0 5,595 0 0 }	1,287,233 1 10	149,201 17 8	24,336 19 6
3	G.—General Stores ...	100 0 0	...	100 0 0	...
		1,406,603 0 0 5,595 0 0 }	1,287,233 1 10	149,301 17 8	24,336 19 6
	I.—REPAYMENT SERVICES (Special Services.)				
1	Works executed over £30 ...	35,000 0 0	39,142 3 1	...	4,142 3 1
2	Works executed under £30 ...	3,000 0 0	2,652 7 5	347 12 7	...
3	Stores Sold ...	7,000 0 0	6,667 6 0	332 14 0	...
4	Electric Current Supplied ...	1,800 0 0	613 2 5	1,186 17 7	...
		46,800 0 0	49,074 18 11	1,857 4 2	4,142 3 1
	L.—WORKS UNDER LOAN VOTE D.				
1	Relaying and Remodelling Yards (50 % to F. 1) ...	1,000 0 0	956 7 1	43 12 11	..
2	Siding Extensions (50 % to F. 2)	2,000 0 0 *1,853 0 0 }	2,455 7 2	1,397 12 10	...
3	Bridge Reconstruction ...	1,000 0 0	550 4 3	449 15 9	...
4	Reducing Grades and Curves ...	100,000 0 0	83,259 3 11	16,740 16 1	...
5	Improving Branch Lines (50 % to F. 3) ...	10,000 0 0	6,921 13 3	3,078 6 9	...
6	New Buildings (50 % to F. 4) ...	2,000 0 0	657 3 7	1,342 16 5	...
7	European Quarters (50 % to F. 5)	500 0 0	...	500 0 0	...
8	Indian and Native Quarters (50 % to F. 6) ...	500 0 0	25 3 6	474 16 6	...
9	Ladysmith Station Goods and Locomotive Yards (50 % to F. 7)	2,000 0 0	355 4 9	1,644 15 3	...
10	Durban and Greyville Yards, Stores, Shops, Sheds and Equipment ...	26,000 0 0	12,703 16 2	13,296 3 10	...
11	Pietermaritzburg Maintenance, Locomotive Stores, Shops, Sheds, and Equipment ...	5,000 0 0	...	5,000 0 0	...
12	New Engines and Rolling Stock ...	50,000 0 0 *4,304 0 0 }	42,605 12 10	11,698 7 2	...
13	Charlestown Locomotive Yard, Sheds and Shops (re Vote) ...	3,000 0 0	...	3,000 0 0	...
14	New Engineering Offices (re Vote)	3,000 0 0 *529 0 0 }	3,522 19 6	6 0 6	...
15	New Telegraphs ...	...	Cr. 49 1 3	49 1 3	...
16	Laying Water Main for greater security against Fire, Head Office, Durban ...	*232 0 0	231 14 8	0 5 4	...
17	Sidings Congella and Bluff ...	...	2,071 12 2	...	2,071 12 2
18	Purchase of Land from Natal Native Trust ...	*5,000 0 0	5,000 0 0	...	...
19	Sale of Capital Assets ...	...	Cr. 2,726 16 5	2,726 16 5	...
		206,000 0 0 *11,918 0 0	158,540 5 2	61,449 7 0	2,071 12 2
	GROSS TOTAL ...	1,659,403 0 0 *17,513 0 0 }	1,494,848 5 11	212,618 8 10	30,550 14 9

* Supplementary Estimate.

APPENDIX NO. 12.]

CAPITAL EXPENDITURE ACCOUNT TO 31ST DECEMBER, 1906.

Sections.	Expended during 1906.	Total to 31st December 1905.	Grand Total.
Main Line	£ 129,856	£ 8,848,531	£ 8,978,387
North Coast Line	728	412,261	412,989
Natal-Zululand Line	956	26,709	27,665
Zululand Line	(Credit) 35,417	741,717	706,300
South Coast Line	148	535,490	535,638
Bluff Line	6,609	51,375	57,984
Umzinto Line	91	41,192	41,283
Richmond Line	363	75,161	75,524
Natal-Cape Line	21,179	821,263	842,442
Greytown Line	986	357,839	358,825
O.R.C. Line	534	541,965	542,499
Dundee Line	184	178,006	178,190
Buffalo-Vryheid	317	326,035	326,352
Upper Tugela	46,324	52,380	98,704
Bethlehem-Kroonstad	353,753	...	353,753
<i>Capital Expended on Open Lines</i>	526,611	13,009,924	13,536,535
CONSTRUCTION EXPENDITURE.			
Alfred County Railway	23,775	28,028	51,803
Weenen Railway	58,845	22,991	81,836
Stuartstown Railway	19,490	177	19,667
Howick Railway ... ..	...	19	19
Branch Lines (Spare Material)	(Credit) 1,417	4,526	3,109
	100,693	55,741	156,434
Gross Capital Expenditure	627,304	13,065,665	13,692,969

APPENDIX No. 13.]

CAPITAL ACCOUNT ITEMS, 1906.

Extending and Re-arranging Station Yards	...	...	£	570
Siding Extension	...	...	...	5,023
Bridge Re-construction	...	...	...	525
Reducing Gradients and Curves	...	...	...	66,714
Improving Branch Lines	...	...	...	6,755
New Buildings and Indian and Native Quarters	...	...	...	505
Ladysmith Permanent Buildings, &c.	...	...	...	522
Locomotive and Stores Shops, Durban	...	...	...	9,575
Engines, Vans, Wagons and Carriages	...	...	...	41,080
Water Supplies	...	...	...	553
New Offices, Engineer-in-Chief	...	...	...	681
Head Offices, Durban	...	...	...	232
Purchase of Lands (Natal Trust)	...	...	...	5,000
Signalling and Train Staff	...	...	...	2,519
Siding Accommodation on Wharves	...	...	...	9,490
Electric Equipment (Point and Bluff)	...	...	...	1,499
Sale of Capital Assets	...	...	(Credit)	7,962
				143,281
CONSTRUCTION EXPENDITURE—				
Natal Cape Railway	...	...	...	20,372
Upper Tugela Railway	...	...	...	46,134
Alfred County Railway	...	...	...	23,775
Weenen Railway	...	...	...	58,584
Stuartstown Railway	...	...	...	19,490
Bethlehem-Kroonstad Railway	...	...	...	353,753
Branch Lines (Spare Material)	...	...	(Credit)	1,417
				520,691
SPECIAL TRANSACTIONS—				
Transfer of Capital Assets to Harbour Department	...	(Credit)	...	581
Purchase of Zululand Railway	...	(Credit)	...	36,087
TOTAL FOR THE YEAR 1906				£627,304

GOVERNMENT COLD STORES.

REVENUE AND EXPENDITURE FOR THE YEAR ENDED
31ST DECEMBER, 1906.

						£	£
Revenue	...	...	...	...	...	1,458	
Expenditure	...	...	..	...	...	3,616	
Loss on Working							2,158
Capital	...	...	...	...	...	30,410	
Siding	...	...	...	...	...	1,071	
						31,481	
Interest at 4 per cent. per annum	...		...	...	...		1,259
Total loss to the Colony							3,417

NOTE.—An amount of £105 was expended on Alterations and Betterments.

STATEMENT OF CONTRACTS LET DURING THE YEAR 1906.

Nature of Work.	Contractor's Name.	Amount.	Remarks.
Ballast at Quarry, 224½ miles, O.R.C. Line.	John Baxter	£150 0 0	
Ballast at Quarry, 243¾ miles, O.R.C. Line.	„	225 0 0	
Ballast at Quarry, Tigers Kloof ...	J. F. Reith	512 10 0	
Erection of New Steel Bridges on Umsindusi Deviation ...	Smullins, Gillespie & Mansel.	610 11 6	
30,000 Hardwood Sleepers for Renewals.	J. Bartram & Son ...	6,093 15 0	
95,000 Djatti Sleepers for Renewals	W. Dunn & Co. ...	18,604 3 4	75,000 for N.G.R. 20,000 for Harbour Dept.
14,000 Jarrah „ „ „	Millar's Karri-Jarrah Co.	2,829 3 4	
5,000 Chairs	Mitcheson & Kolbrunner	1,200 0 0	
5,000 W. Steel Chairs	„ „	1,280 0 0	
10,000 „ „	„ „	2,460 0 0	
Making and supplying Cattle Guards for Harrismith-Bethlehem Rly.	W. F. Johnstone ...	145 0 0	
Removal Sailors Rest, Point ...	Newton & Wood ...	170 0 0	
Supply of Uniforms and Accessories for three years.	Mackenzie Bros. ...	7,269 0 0	Approximately.
New Generating Plant, Durban Harbour sub-station plant.	Hubert Davies & Spain ...	4,950 0 0	
Printing of Time Tables and Posters for three years.	P. Davis & Sons ...	5,245 0 0	Approximately.
Delivery and erection of New Generating Plant for Electric Power Station, Durban.	Hubert Davies & Spain ...	11,995 0 0	(Sec. 1).
		1,561 0 0	(Sec. 11).
Collection and delivery of Goods and delivery of Parcels at Maritzburg for five years.	D. C. Dick ... ..	...
Erection of Ironwork, Boilers, &c. for N.G.R. Electrical Departmt.	African Marine & General Engineering Coy., Ltd.	500 0 0	
Supply of Drugs and Chemicals for one year.	Lennon, Ltd. ... ..	...

STATEMENT OF FATAL ACCIDENTS ON NATAL GOVERNMENT RAILWAYS FOR YEAR 1906.

GENERAL PUBLIC.

Date.	Name.	Locality.	Remarks.
Jan. 10	Mkombekazi, Native woman	Sundays River Bridge, 209½ miles, Main Line	Attempted to cross rails in front of Train without warning, and was run over.
Feb. 27	Indian adult, Ponnappa and Indian child, Armugum	5 miles, North Coast Line	Run over by train during night. Adult supposed to have murdered child and committed suicide (employee of Storm & Co.)
March 11	Davis, T.	Near Level Crossing, Newcastle end of Charlestown Station	Run over by train during night. Case of suicide.
,, 12	Indian (name unknown)	Churchill Road Stopping Place, N.C. Line	Run over by Train. Not known for what reason deceased was on line.
June 19	Indian, Nudari Naick	Near 5 miles, North Coast Line	Run over by train during night. Case of suicide (employee of Storm & Co.)
July 21	Adams, E. C.	Stamford Hill Station	Fell between carriages of moving train and platform.
,, 27	"Jan" Basutu, transport driver	299½ miles, Main Line	Overbalanced himself whilst riding in open truck on troop special, and fell underneath wheels.
Aug. 23	Latchman Sing, Indian	163½ miles, Main Line	Run over by train during night. Case of suicide.
,, 25	Chengin, Indian	Between 5 and 5½ miles, N.C. Line	Run over by train. Case of suicide (employee of Storm & Co.)
Oct. 26	Mhlozana, Native	Umsindusi Bridge, 152½ miles, N.C. Line	Run over by Train. Endeavoured to cross rails as engine approached.
Nov. 6	Indian herd boy (name unknown)	59½ miles, North Coast Line	Run over by Train. Rushed across rails as engine approached (employee of Messrs. Hulett & Sons.)
Dec. 1	Sihlanumajola, Native	Camp Crossing, Pietermaritzburg	Endeavoured to cross line in front of approaching light engine.
,, 4	Ukisunanu Myangila, Native	Glencoe Colliery	Whilst braking down a truck, brake handle gave way, owing to a flaw in metal and Native fell in front of wheels of moving truck.
,, 23	Native (name unknown)	Near E Shed, Point	Sleeping underneath truck which on being shunted by capstan by Messrs. Nicholl & Co.'s employees passed over him inflicting fatal injuries.
,, 31	Dhlovwanu, Native ricksha puller	Sparks & Young's Siding, Berea Road	Run over by moving truck whilst crossing rails. Supposed to have been under influence of liquor.

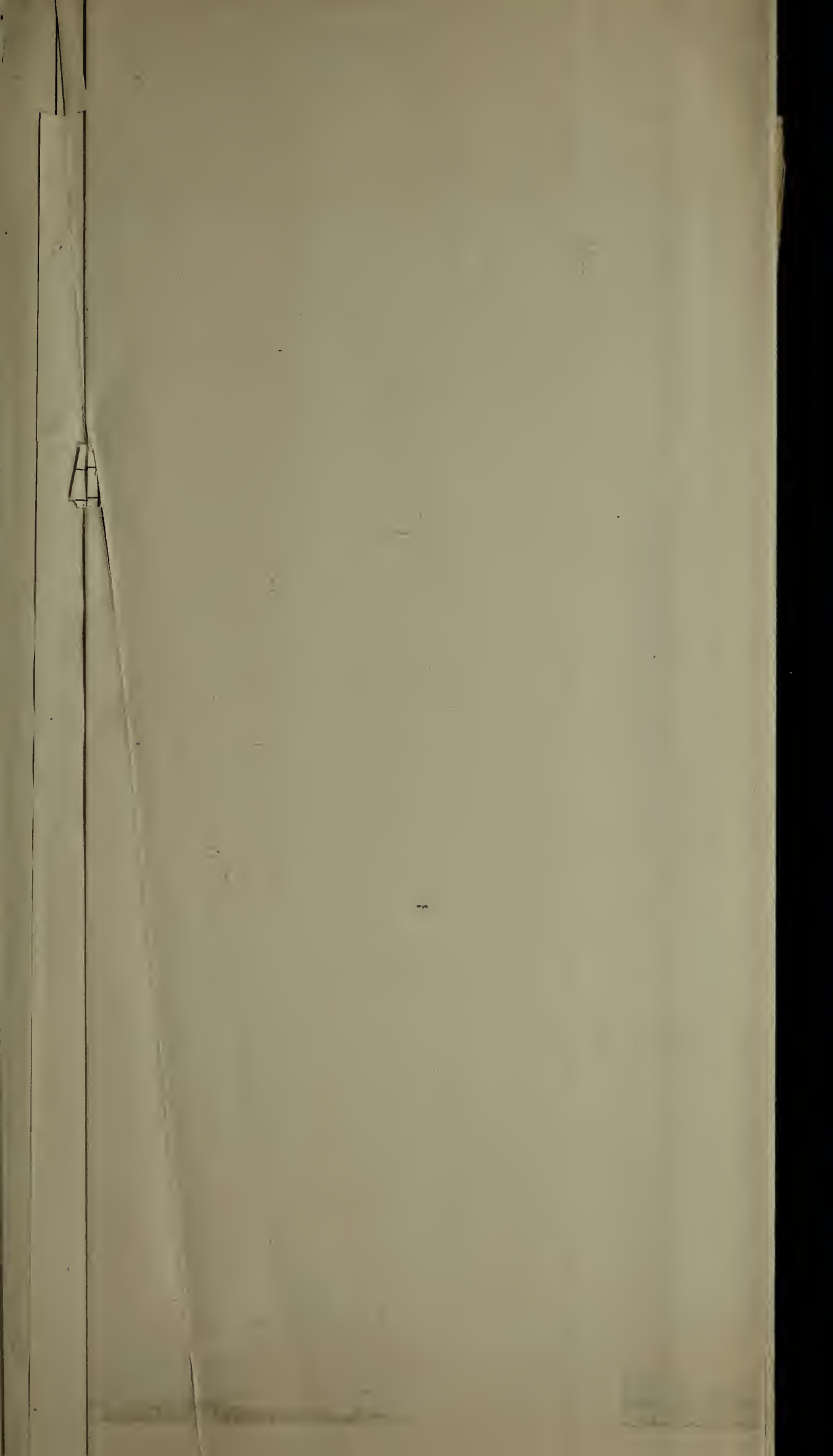
RAILWAY SERVANTS.

Date.	Name.	Occupation.	Locality.	Remarks.
March 16	Downes, E.	Foreman Plate-layer	210½ miles, O.R.C. Branch	Trolley unprotected by flagman and run into by special train ex Ladysmith.
April 30	Jim, 61466	Goods Shed Native Labourer	Durban ..	Knocked down by moving trucks. Died in Hospital 14th June, 1906.
May 2	Mhahlane, 103530	Locomotive Native Labourer	Loc. Sheds, Ladysmith	Crushed between two engine buffers.
July 18	Babile... ..	Native Labourer	Point	Ran across rails in front of approaching engine without any warning.
Oct. 3	Newman, J.	Learner Shunter	Point	Foot caught between points blade and stock rail, and before it could be extricated was run down by truck.
,, 19	Sakeni	Maintenance Native Labourer	Camp Siding, Durban	Knocked down by a truck during shunting operations, whilst engaged in cleaning points.
Nov. 12	Dhaonde, S.L. 5937	Maintenance Indian Labourer	Sundays River Tank, 209½ miles, Main Line	Struck on head with a sleeper thrown out of a truck which was being off-loaded.

SUMMARY.

	Europeans.	Natives.	Indians.
Servants Killed whilst on duty	2	4	1
General Public	2	7	7
	4	11	8

GROSS TOTAL ... 23.—Of this total 5 were cases of suicide.



STATEMENT OF FATAL ACCIDENTS ON NATAL GOVERNMENT RAILWAYS FOR YEAR 1906.

GENERAL PUBLIC.

Date.	Name.	Locality.	Remarks.
Jan. 10	Mkombekazi, Native woman	Sundays River Bridge, 209½ miles, Main Line	Attempted to cross rails in front of Train without warning, and was run over.
Feb. 27	Indian adult, Ponnappa and Indian child, Armugum	5 miles, North Coast Line	Run over by train during night. Adult supposed to have murdered child and committed suicide (employee of Storm & Co.)
March 11	Davis, T. ...	Near Level Crossing, Newcastle end of Charlestown Station	Run over by train during night. Case of suicide.
„ 12	Indian (name unknown)	Churchill Road Stopping Place, N.C. Line	Run over by Train. Not known for what reason deceased was on line.
June 19	Indian, Nudari Naick	Near 5 miles, North Coast Line	Run over by train during night. Case of suicide (employee of Storm & Co.)
July 21	Adams, E. C. ...	Stamford Hill Station	Fell between carriages of moving train and platform.
„ 27	“ Jan ” Basutu, transport driver	299½ miles, Main Line	Overbalanced himself whilst riding in open truck on troop special, and fell underneath wheels.
Aug. 23	Latchman Sing, Indian	163½ miles, Main Line	Run over by train during night. Case of suicide.
„ 25	Chengin, Indian ...	Between 5 and 5¼ miles, N.C. Line	Run over by train. Case of suicide (employee of Storm & Co.)
Oct. 26	Mhlozana, Native ...	Umsindusi Bridge, 152¼ miles, N.C. Line	Run over by Train. Endeavoured to cross rails as engine approached.
Nov. 6	Indian herd boy (name unknown) ...	59½ miles, North Coast Line	Run over by Train. Rushed across rails as engine approached (employee of Messrs. Hulett & Sons.)
Dec. 1	Sihlanumajola, Native	Camp Crossing, Pietermaritzburg	Endeavoured to cross line in front of approaching light engine.
„ 4	Ukisunanu Myangila, Native	Glencoe Colliery ...	Whilst braking down a truck, brake handle gave way, owing to a flaw in metal and Native fell in front of wheels of moving truck.
„ 23	Native (name unknown)	Near E Shed, Point ...	Sleeping underneath truck which on being shunted by capstan by Messrs. Nicholl & Co.'s employees passed over him inflicting fatal injuries.
„ 31	Dhlovwanu, Native ricksha puller	Sparks & Young's Siding, Berea Road	Run over by moving truck whilst crossing rails. Supposed to have been under influence of liquor.

RAILWAY SERVANTS.

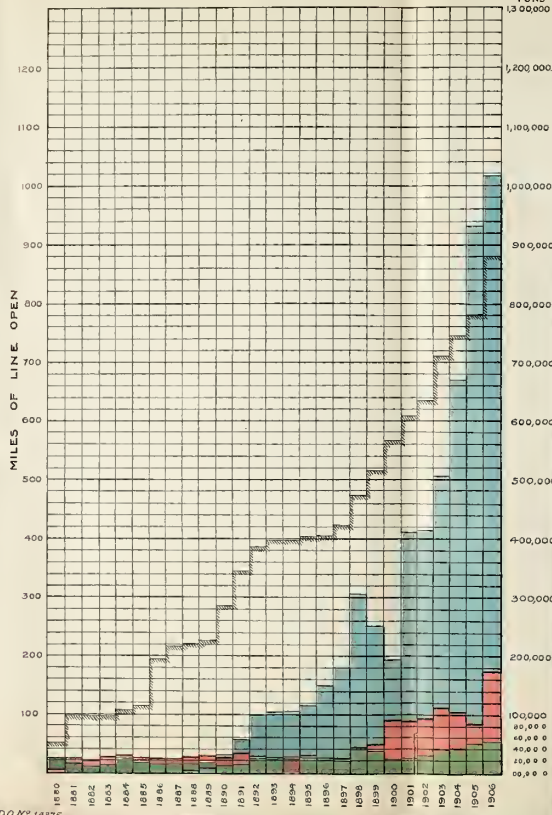
Date.	Name.	Occupation.	Locality.	Remarks.
March 16	Downes, E. ...	Foreman Plate-layer	210½ miles, O.R.C. Branch	Trolley unprotected by flagman and run into by special train ex Ladysmith.
April 30	Jim, 61466 ...	Goods Shed Native Labourer	Durban ..	Knocked down by moving trucks. Died in Hospital 14th June, 1906.
May 2	Mhahlane, 103530	Locomotive Native Labourer	Loc. Sheds, Ladysmith	Crushed between two engine buffers.
July 18	Babile... ..	Native Labourer	Point	Ran across rails in front of approaching engine without any warning.
Oct. 3	Newman, J. ...	Learner Shunter	Point	Foot caught between points blade and stock rail, and before it could be extricated was run down by truck.
„ 19	Sakeni	Maintenance Native Labourer	Camp Siding, Durban	Knocked down by a truck during shunting operations, whilst engaged in cleaning points.
Nov. 12	Dhaonde, S.L. 5937	Maintenance Indian Labourer	Sundays River Tank, 209½ miles, Main Line	Struck on head with a sleeper thrown out of a truck which was being off-loaded.

SUMMARY.

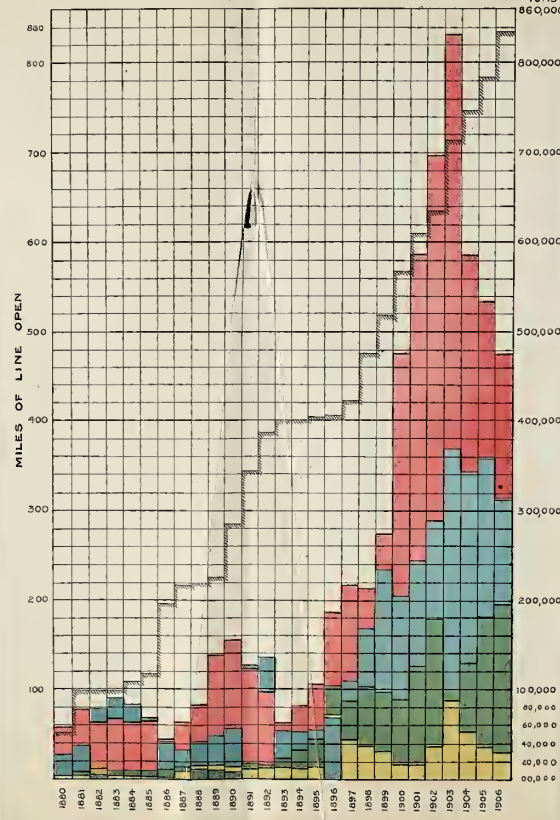
	Europeans.	Natives.	Indians.
Servants Killed whilst on duty	2	4	1
General Public	2	7	7
	4	11	8

GROSS TOTAL, ... 23.—Of this total 5 were cases of suicide.

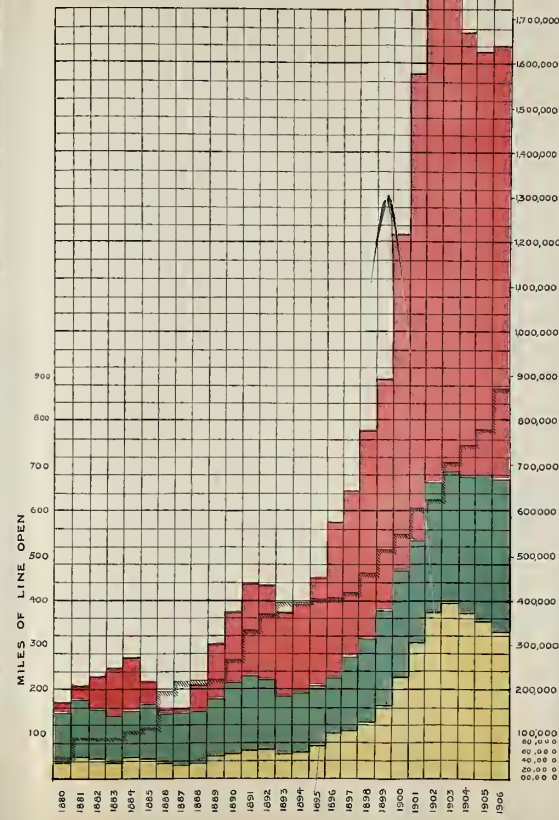
NATAL GOV^{MNT} RAILWAYS.
STATISTICAL DIAGRAM N^o 1
GOODS TRAFFIC 1880-1906
SHOWING SUGAR, MISCELLANEOUS, GOODS & COAL



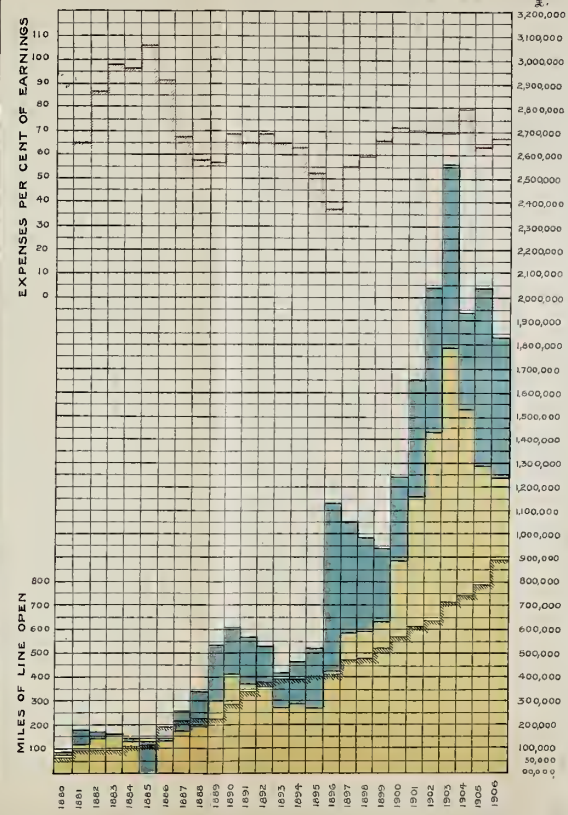
NATAL GOV^{MNT} RAILWAYS.
STATISTICAL DIAGRAM N^o 2.
GOODS TRAFFIC 1880-1906
IN TIMBER, MEALIES, MINERALS & GENERAL MERCHANDISE.

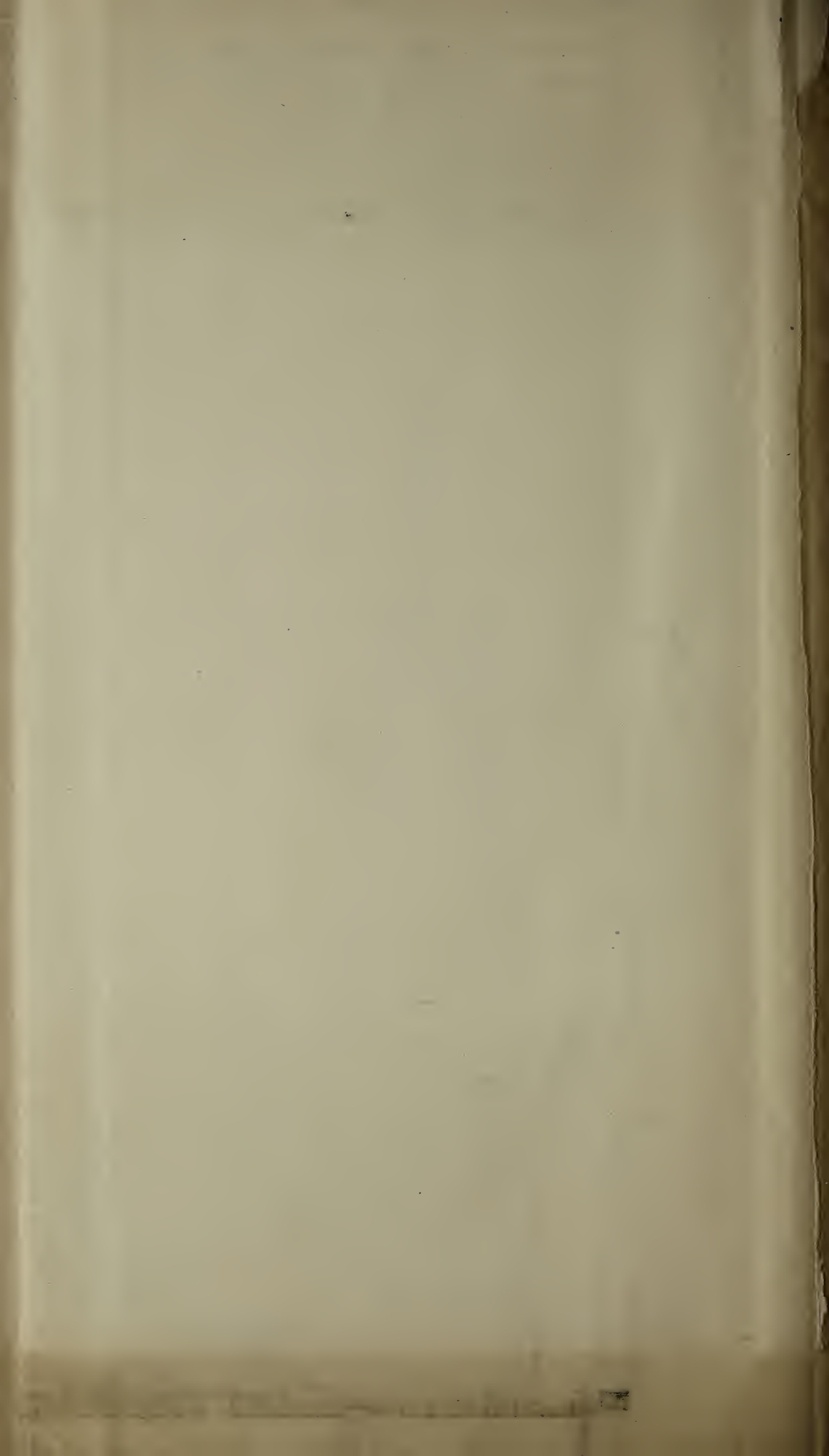


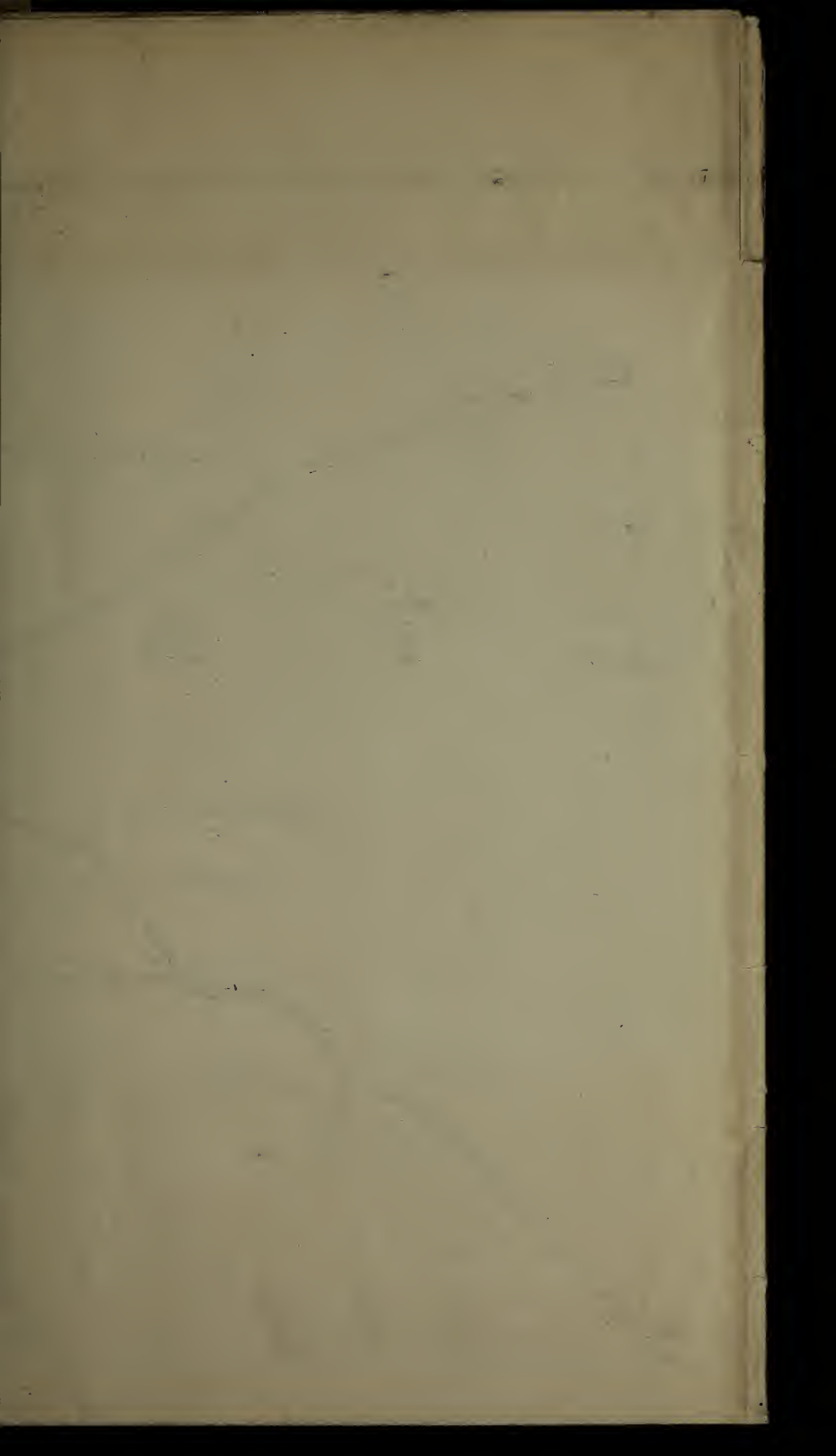
NATAL GOV^{MNT} RAILWAYS.
STATISTICAL DIAGRAM N^o 3
PASSENGER TRAFFIC 1880-1906
MILES OF LINE OPEN SHOWN THUS: -

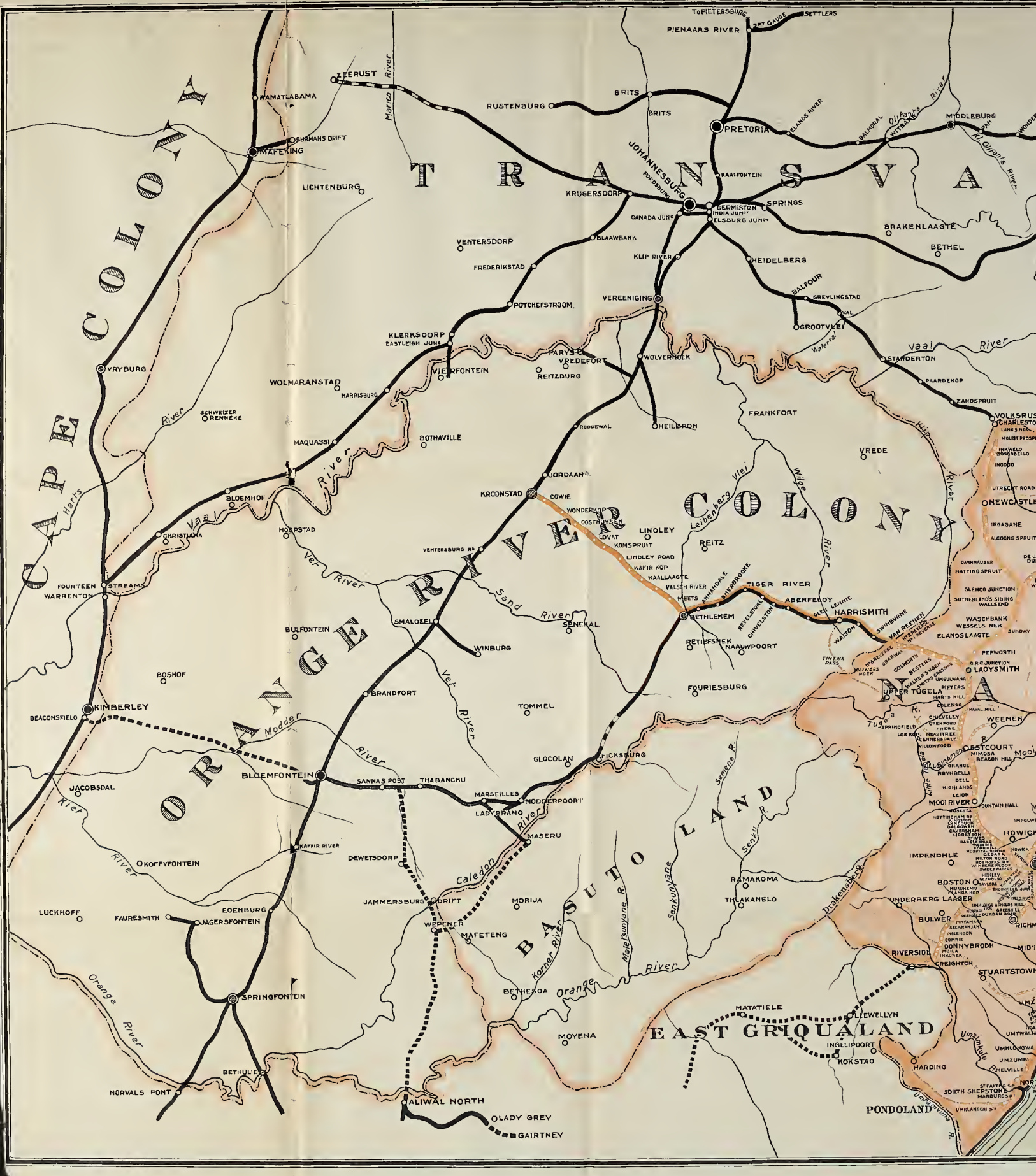


NATAL GOV^{MNT} RAILWAYS.
STATISTICAL DIAGRAM N^o 4.
RECEIPTS & EXPENSES 1880-1906
MILES OF LINE OPEN SHOWN THUS: -













3 0112 061726367